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Notes on Pepsine—A Much Abused and Misrepresented Remedy.

By Carl Jungk, Ph. D.

As there are individuals, who, on the appearance of a newly introduced remedy, at once discover wonderful curative properties in it, and enthusiastically laud it to the skies, so there are minds who live in an atmosphere of chronic doubt and distrust, and from principle are continually engaged in a warfare against all new agents introduced to therapeutics through pharmaceutic mediation. Both classes may at times be in the right, yet just as often be in the wrong, and it would seem very desirable to observe the golden mean between the two extremes. We need only, for an instance, refer to the career of salicylic acid. What astonishing and wonderful properties were at first attributed to this article, and with what enthusiasm was it received! Technologists and scientific men were completely carried away with it, and related wonderful accounts of its antiseptic virtues. It was consequently very largely used in nearly all branches of industry, where it could find application. But how have these expectations dwindled to a reality of insignificant proportions, and how many have not been disappointed who placed too much reliance on its potency and virtues! Whether the reason for these disappointments is to be looked for in the frequently incorrect and faulty methods of its application, or in the properties of the body itself, which may have been overestimated as an antiseptic, is a question which may be dismissed for the present; but the one fact remains, that medical science has at least received the benefit of an addition to its armamentarium in a remedy for acute articular rheumatism, possessing considerable value, though not to be regarded as a specific.

From a speculative standpoint, might it not be possible that the artificially-produced salicylic acid is only isomeric with the natural; that it is to be regarded rather as carbonic acid whose oxygen is partly substituted by phenol, and whose contact with ferments provokes a decomposition back to its original molecular factors, *i. e.* to carbonic acid and carbolic acid; and that where the causes of this retrograde decomposition are absent, no antiseptic action is exhibited. According to such a view we should look to the liberated carbolic acid as the cause of its activity.

It is far from my purpose to set up such a theory in antagonism to the views at present received, but certain observations have led me to consider the possibility of such a relation, without as yet having endeavored to demonstrate it experimentally.

The object of the above introductory statements is to call attention to the inappropriateness and injustice of the alternate over and under estimate of such new remedies, and for further instance I need only refer to chloral hydrate, chloroform, benzoate of soda, and, of recent date and interest, to bromide of ethyl. The latter agent, after a very successful period of use in France and Germany, a period remarkable for its immunity from danger, is all at once menaced, soon after its introduction here, by a risk of being discarded. At present it seems as if still another remedy, pepsine, were to be subjected to villification and contumely and perhaps eventually, though undeservedly, meet the fate awarded to pretenders. Many of our contemporaries, both at home and abroad, have declared a war of extermination against the innocent remedy, while at the same time others have been as prompt to take up arms in its defense.

The results obtained by a number of skilled scientific experimenters, by men the mention of whose names alone would inspire confidence in the results of their labors, are to count as nothing. The very fact that pepsine in acidulated solution is capable of transforming albumen into peptone is to be disputed. That five grains of saccharated pepsine of normal strength are only able to dissolve two grains of albumen instead of sixty grains, as has heretofore been believed, is to be accepted as individual error of observation in the latter case, and the conclusion adopted that all results in harmony with this standard are incorrect, and only the last observer infallible. We can well exclaim with Gœthe's Faust, "True, I hear the tidings, though credence fails me." It is wonderful what astonishingly incorrect observers such men as Schwan, Pappenheim, Lehmann, Bidder and Schmidt, Scheffer, etc., must have been if these latter assertions are true! Assertions are easily made which, with a stroke of the pen, are to annihilate theories based on experience and physiological demonstration; but substantial proof of logical correctness is quite another thing.

It would be well, at this point, to review, in short, the history of pepsine, and next to devote a cursory inspection to the article itself. The presence of a peculiar gastric ferment or digestive principle was first suspected by Eberle,

and Schwan succeeded in isolating a substance from the gastric juice by digestion with water, precipitation with mercuric chloride, and removal of the mercury, which principle exercised a solvent or digestive action on coagulated protein substances. He named this substance pepsine (after the Greek *pepsis*, digestion or carbonization).

Wasman used the mucous membranes of hogs' stomachs, and digested them repeatedly with water at 30° to 35° C., until putrefaction commenced. The mixed, clear liquors were precipitated with lead or mercury salts, and the metals removed as sulphides, the resulting filtrate concentrated at a low temperature, and the liquid then precipitated with alcohol. He states that one part of such pepsine in weak acidulated solution was capable of dissolving 60,000 parts of coagulated egg-albumen in six to eight hours. This method of preparation has since been adhered to in Boudault's pepsine.

Pappenheim, who also devoted considerable attention to the experimental preparation of pepsine, states that it is precipitable by the sulphates of iron and copper, but soluble in excess of the reagents. His pepsine was not free from albumen.

Bidder and Schmidt treated the gastric juice with lime, evaporated the filtrate to a syrupy consistence, precipitated with alcohol, and obtained a tolerably pure article. Their preparation gave, with an excess only of corrosive sublimate, a permanent precipitate, and could be heated to 107° C. without decomposition.

A few elementary analyses of pepsine have been made, but at present these possess but little value. Only when it shall have become possible to isolate the gastric ferment in a state of purity, will such an analysis be of service. Schmidt's assertion that pepsine combines with chlorhydric acid, forming a compound acid named by him chlorpepsinhydric acid, and that it acts as such, has so far not been negatived, and seems to have some foundation for its support. The processes above mentioned with others may furnish a digestive remedy which is very good when fresh, but which deteriorates, more or less, in the course of time, losing its activity.

Too much precipitation, solution, re-precipitation, evaporation and other like treatment, cannot improve the quality of pepsine very much, as it must be regarded in the light of a ferment, and possessing the properties of a ferment. Such treatment applied to yeast would most certainly deprive it of the greater part, if not of all, of its distinctive character and properties.

Professor Scheffer, of Louisville, was the first who practically realized the views just mentioned, by elaborating a simple and economical process for the preparation of pepsine. His principal endeavor was to accomplish the contact of the peptic principle with an acidulated liquid until solution and clarification had been effected and then separate it from its solution in a simple manner, and at the same time by an agent having preservative properties. The majority of manufacturers now prepare it, in the main, according to Scheffer's process, but the methods of drying or concentrating the pepsin may differ, and thus, perhaps, affect in some degree the quality of the resulting preparation. An article skillfully prepared, with all necessary precautions, will usually dissolve a larger quantity of coagulated albumen than has been adopted as the standard, but the influence of age has a tendency to diminish its power. For natural reasons a very concentrated pepsin will lose its activity more rapidly than a saccharated preparation, as in the latter the preservative properties of milk-sugar exert an influence in delaying change or decomposition. The idea of furnishing very concentrated pepsine to the trade is therefore impractical. If the pepsine is first mixed with milk-sugar while it is still moist, the drying proceeds with greater rapidity, which rapidity is in direct proportion to the quantity of milk-sugar added, the addition also increasing the permanency of the preparation. It is of little consequence whether one, ten or twenty grains of a given article of pepsine be administered, but certainly it is better to give twenty grains of an active though mild preparation, than one grain of an article professing to be concentrated, but at the same time of doubtful activity. Pepsine should, whenever possible, be administered in combination with acids, of which lactic and muriatic are the best. If we mix fifty grains of a carefully prepared fresh saccharated pepsine with sixty minims of lactic acid, and sixty minims of muriatic acid, and add four ounces of chopped beef, free from fat, and one and one-half pints of water, then allow the mixture to stand for three hours, with frequent agitation, at a temperature of 110° to 115° F., the meat will pass into solution, with a residue of but about two drachms, equaling six and one-fourth per cent. If to one part acidulated pepsine, we add from 50,000 to 80,000 parts of fresh milk, in a short time the entire quantity will coagulate; if the process is repeated without pepsine, with the same quantity of acid, the milk will preserve its fluidity.

The efficacy of pepsine in dyspepsia, colic, stomachic cramps, and in general in disturbances where the digestive organs are concerned, has been too generally attested by competent observers to leave any room for doubt. In cases of over-indulgence in food or wine, it is an unexcelled remedy, producing relief frequently in five or ten minutes; it has no superior as a dietetic remedy, while it has achieved a reputation, according to statements from good authorities, in the vomiting of pregnancy.

The best method for preserving the activity of pepsine for long periods is to present it in acidulated solution with glycerine; such a preparation should in all cases have the preference, although it may in course of time acquire more or less color.

The most concentrated permanent form of pepsine, in which it is possible to present it, has about the following composition:

Water	5 parts.
Ash (soluble in water) .	15 "
Ash (insoluble in water) .	2 "
Sugar-milk	62 "
Pepsine (organic matter) .	16 "
	100

Four parts of such a preparation, mixed with one part milk-sugar, gave an article which, shortly after its manufacture, was capable of dissolving for each part employed, 100 parts coagulated albu-

men, previously chopped, the process being even completed, when continual agitation was employed, in one half hour. After the lapse of three months, it had lost, in spite of very careful preservation, a part of its solvent properties; when, however, it was digested for twenty-four hours with some muriatic acid, lactic acid, and glycerine, it was again capable of dissolving coagulated albumen in the same proportion as before. Muriatic acid itself possesses a slight solvent property on albumen, but is not capable of effecting its transformation into peptone. It is far from my purpose to convey the impression that there are no worthless preparations in the market; such are almost invariably made pleasing to the eye without regard to their therapeutic value. The existence of worthless preparations is, however, no valid reason for denying entirely the digestive activity of pepsine on albumen and analagous substances, and its power of transforming such into peptone.

(Written for the Therapeutic Gazette.]

Nervousness, Divorce, Food.

By Ephraim Cutter, M. D., Boston, Mass.

IN a late number of the North Amer. Review, Dr. Allen showed the present prevalence of divorce, and in endeavoring to account for it raised the question in substance, whether increased nervousness might not explain the increase of divorces. While we believe that no one cause, or set of causes, alone, can account for the facts stated, still we think the physical, physiological or pathological subjective conditions expressed by the word "nervousness," or better by the word "neurosis," are worthy of the attention of those who study the ætiology of divorce. Take one hundred married couples who are *not* nervous and one hundred couples who *are nervous*. If the divorce disease attack both we think there would be no mistake in affirming that the larger number of divorces, other things being equal, would be found with the nervous couples. All know that nervous folks are harder to get along with than those who are not nervous. This is easily explained. We all receive information as to what is in the world through the medium of nerves. The eye, an instrument of precision capable of detecting over three billions of vibrations in one second of time, sees through the impressions made on the optic nerve. Blindness results when this nerve is injured. The ear, another wonderful instrument of precision, that can detect 20,000 vibrations in one second of time, hears by means of the auditory nerve. The tongue tastes with the gustatory nerve. The body feels with the nerves of touch. The nose smells by the olfactory nerves. Our innate intuitions all come through cerebral nerve centers. Respiration, circulation, secretion, digestion, development, growth, etc., are governed and maintained through the nerve centers. Is this doubted? Look in upon a family where the eldest married daughter is ill with puerperal convulsions. Her nerve centers poisoned with retained urea. Her renal excretion loaded with albumen—the life of her blood. What are the fearful objective symptoms but a terrible result of interference with nerve force?

Take an example common in New England. A woman, pale, irritable, sensitive, fretful, peevish, or, as they say, "spleeny and nervous." How distorted the evidence presented to her sensorium, to her weakened nerve centers, must be! Sometimes she may look the picture of health, yet suffers from pain and abnormal sensations, perhaps even aberration of mind—but all are realities to her—and yet how easy is it for husbands of such women to complain of their incompatibility of temper, their want of congeniality, etc., etc. The matter ripening with years may be followed by the production of alienation enough to cause separation by law! We knew a husband to seek divorce in Boston since his wife became insane after marriage. Yet the wife was suffering from local physical disease sufficient to account for the mental alienation under her circumstances. The court refused a bill. The man ran off to California and re-married, while his deserted wife, under treatment, and his absence, disclosed no evidence of insanity.

But have nervous diseases increased? Dr. George M. Beard, the eminent neurologist of New York, in a late article in the Virginia Medical Monthly, July, 1879, says that functional nervous diseases are new and not found in our older medical works. There was not even enough new disease of the weakened type (neurasthenia) to give it a name, but now we find evidence of the increase of this class of troubles in,

1. The establishment of specialists, and special journals and literature of neurology.

2. The testimony of physicians over forty years in practice, that more cases of disease are connected with the nervous system now than when they entered on the practice of medicine.

3. The number of insane persons is on the increase, and their treatment less successful as seen by the increase of hospitals and the perusal of their reports. (In 1871 I found, in the State Insane Asylum at Stockton, Cal., 1,000 patients. That is one to 500 of the State population.)

4. The term "nervous prostration" is in common usage.

5. The shelves of the druggists show more officinal and nonofficinal drugs for nervousness than ever before.

6. Nervine hospitals.

7. Sthenic disease replaced by asthenic.

8. Great national mental activity. We are a nation of readers. Our ephemeral literature is immense.

9. Look over the faces of a New England audience. See the cry of nerve distress depicted on the adult faces.

10. Culture in modern civilization means increased exercise of nerve force.

11. Charcot, in Paris in 1875, published a case of hysteria followed by central spinal lesion. Now hysteria is one of the many reflex nervous disturbances arising from peripheral uterine lesion. If Charcot is correct we have certainly come on a great idea in neurology—one that has a tremendous influence in unsettling the nervous systems of our women, and which goes far to explain the irreconcilable differences in unhappy married life. Who can expect an agreeable good nature in a person whose posterior columns of the spi-

nal cord are in a state of fatty degeneration (sclerosis)? Gynæcological diseases are very prevalent.

Perhaps, then, divorce is a matter of medical jurisprudence; certainly I have known such cases. If these things are so, are there any causes of large operation, that are calculated to unsettle the nervous system? We reply "yes," but we will only allude to one that operates three times a day on every person, almost, in society. Dr. James H. Salisbury, of Cleveland, Ohio, refers to it in the remark, "Food is an agent of tremendous power." Feed mankind with the same science that birds, kine, and horses are fed—to wit, on their natural food—and then we may look for the healthy results obtained with these animals. Dairymen know how to feed for health and milk. Hostlers know how to feed their horses, and ladies their canaries. They all seek to give the normal natural food of the animal under their care. Now if man would treat his own race as he treats his animals, we think human nervous systems would not show such signs of weakness. What is nerve food? It is a selection of aliments containing all the elements necessary for the nerves in normal proportions and in assimilable conditions. Phosphorus, sulphur, fats, etc., are regarded as chemical nerve food.

We ask, "are there any aliments in universal civilized use that do not contain the normal amount of food for the nervous system?" We reply "yes,"—flour, starch, sugar. Liebig long ago pointed out that two-thirds of the mineral elements—including the gluten and phosphate cells—were removed by milling. He predicted disaster to the human race for demanding an article of flour that should make up into *white* bread—the dark colored bread being due to the retention of the gluten cells in their normal proportions. Magendie fed dogs on flour. They all died in forty days. He fed others on wheat and they thrived, etc., etc. Now flour is largely made up of the parenchymatous starch of the wheat. In being made white it loses three-fourths of the peripheral mineral elements that our Creator intended man should get when wheat was eaten. In other words three-fourths of the nerve food is withdrawn from the most prominent article of diet used by married couples who seek divorce. We do not wish to diatribe, but we would respectfully say to Dr. Allen that if he could induce the married to give themselves the phosphorus and the nerve food intended for wheat eaters, that their nerve centers would be better nourished and fed. In this case they would perform their life duties better and be less sensitive to outside influences. As a hungry man is more impressible, (may we call it nervous? look for example at a hungry company waiting for a delayed dinner) than man well fed, so nerve fed couples could bear with and put up with the disagreeabilities of life. Their temper would be better, as their health would be better. Reproduction would be less an abnormal and more of a physiological process. The mother's nerve centers well fed and sustained, would delight in the agreeable music of the voices and feet of children. We would have more Cornelias. The function of lactation would be well performed, the children have a better start in the world, and life be much less a burden to the attendants. As the dairymen feed for milk, so may physicians feed. For example, a few years ago a Boston lady married and went to Maine to live. Her age was 28 years, and her weight ninety-eight pounds. After a time she was delivered of twin sons. A strong desire was expressed to have the function of lactation, so that their support should be derived from the mother alone. She was placed on the dairyman's plan and carried it out. After six months—the twins had lived on their mother alone—one weighed seventeen pounds and the other eighteen pounds, while the mother had gained ten pounds in weight. There are no signs of divorce in this family, and the twins are perpetual sources of delight to all around. In my opinion starving nerve centers means, deficient secretion, disaster, and sometimes divorce. In this connection it may be proper to ask are there any neuroses which would especially interfere with the marital state and cause unhappiness? Physicians well know the result of reflex irritation. Among them is an exaltation of the sense of touch, so that the lightest contact produces excessive pain. For example, I have seen the slightest touch of a patient's chest produce agony. Another where a gentle touch of the finger on a dorsal spine caused the patient to faint, unconscious. This state of things is called hyperæsthesia (over feeling). When hyperæsthesia becomes located in the way of marital life the history of the pair becomes extremely unhappy. For example, some fifteen years ago a divorce was decreed in Massachusetts on the ground of impotency due to congenital malformation and sworn to by an expert (so-called). Subsequently a true expert showed nothing present but vaginismus (hyperæsthesia) to be present. So that in this case, at least, a *neurosis* caused divorce. Now, if this wife had been treated gynæcologically, and cured, no divorce would have been decreed.

As a physician, I believe that more are generally cross, peevish, irritable, ugly, morose, unfeeling, revengeful because of hungry nerves than is usually believed to be the case. The time to approach for a favor is just after a good dinner. On the other hand intoxicated nerve centers steel the heart to murder and crime. It is not intended to wink out of sight natural depravity, but we do believe if the nervous systems of the married were well nourished, that much of the incentive to divorce would be removed.

In conclusion, we would express surprise at the ease with which divorces are obtained. At Lowell I once heard a judge give a hearing to a wife. She began her relation and had not proceeded far when she remarked, "He struck me." "Did he strike you?" interrupted the judge. "Yes," was the reply. "Divcrce decreed" said the judge, and this closed the hearing. If divorces are sapping the foundation of our national life more than murders, and other crimes, ought not our legislators to make a more serious matter of it? How did Judge —— know but the woman lied, and that this was her scheme to get another husband? It appeared, however, to the writer that food had much to do with the decree, for it was dinner time. The judge was human and hungry, so his nerve centers were not well settled, and made but short work with the case. We repeat "food is an agent of tremendous power."

[Written for The Therapeutic Gazette.]

Jamaica Dogwood—Piscidia Erythrina.

By J. H. Egan, M. D., Pulaski, Tenn.

THIS is a tree of the family "leguminosa" which grows in the island of Jamaica, attaining an altitude of twenty to thirty feet. The bark of the root is what is used in medicine. The natives of the West Indies use it in catching fish. They macerate the leaves, twigs and bark of the root with the residue from the distillation of rum or lime water. It is then put in baskets which are dragged up and down the ponds until the fish are stupefied, and upon rising to the surface are caught and eaten. The small fish are killed. The tree bears a large and beautiful flower.

This drug comes recommended by physicians in Jamaica and England who have used it extensively and consider it a hypnotic and narcotic of the highest value. Its use is not followed, like that of opium, by hyperæmia of the brain, nausea and nervous disturbance. Sleep produced by Jamaica dogwood is tranquil and refreshing, and free from dreamy sensations. Any drug that can be used in place of opium deserves the closest study and investigation. In addition it is a diaphoretic.

On animals it produces frequent respirations, incoördination and dilatation of the pupil; and if a poisonous dose be administered, asphyxia, salivation and death result. An over dose produces contraction of the dilated pupil, narcotism, and blunted sensibility which is central and not peripheral in origin. It gradually decreases reflex action which afterwards again rises in activity to that observed in the normal state. It first increases and then decreases the heart beat. It has no effect on the pneumogastric nerve. It stimulates the monarchical vaso motor center, seated in the medulla and pons varolii.

On man thirty drops of the fluid extract causes drowsiness and dilatation of the pupil. In a few hours this passes off and there is no unpleasant after effect. When exhibited in a teaspoonful dose there is experienced a pungent burning sensation in the throat and stomach, which is succeeded by a feeling of warmth over the whole body. Salivation, sweating, dilatation of pupils and drowsiness follow, and continue for several hours. On administering a still larger dose the same sensations are experienced and a quiet refreshing sleep results.

Opium rapidly relieves pain, produces a beatific intoxication and sleep, by overwhelming the brain. Jamaica dogwood produces no hyperæmia of the brain or intoxication, but simply sleep without the disagreeable after effects of opium. It resembles that produced by bromide of potassium or lupulin.

There are two modes of death, asphyxia and asthenia, the former of which being the manner of death from piscidia. In this it differs from chloral which frequently exerts such a dangerous action upon the heart and the respiratory apparatus.

Compared with atropia, piscidia unlike the former does not paralyze the motor nerves; it does not paralyze the chorda tympani; it does not arrest the sudoral secretion; it does not paralyze the pneumogastrics, and does not elevate greatly the arterial tension, but, like it, dilates the pupil.

Compared with morphia, like it, it produces sleep, heightened excitability, spinal convulsions, general paralysis and stimulation of the main vaso motor center; unlike it, it dilates the pupil.

The following propositions may be formulated:

1. It is a narcotic.
2. It does not effect the irritability of the motor nerves.
3. It does not attack the peripheral ends of the sensory nerves.
4. It reduces reflex action by a stimulant action on the centers of Setschenow.
5. It produces a tetanoid state by a stimulant action on the spinal cord and not by a paralysis of Setschenow's centres.
6. It dilates the pupil, which dilatation passes into a state of contraction upon the supervention of asphxia.
7. It salivates.
8. It increases the secretion of the skin.
9. It reduces the frequency of the pulse.
10. It increases arterial tension by stimulation of the monarchical vaso motor center.
11. This increase of pressure is soon succeeded by a fall due to a weakening of the heart itself.

Dr. William Hamilton, of Plymouth, England, says that he was induced to try it as an anodyne in toothache and found a saturated tincture very efficacious. The bark of the root to be effectual must be gathered during the period of infloresence in April. When chewed it has an unpleasant acrimony like mezereon. It yields its virtues to alcohol but not to water. The dose is from thirty drops to two fluidrachms. He tried it on himself when laboring under severe toothache, taking one drachm in cold water on going to bed. He first felt a violent sensation of heat internally which gradually extended to the surface, and was followed by profuse perspiration with profound sleep for twelve hours. On awaking he was quite free from pain and without the unpleasant sensations which follow a dose of opium.

Dr. Hansen, of Jamaica, says, at present no one denies that the piscidia erythrina has an established reputation as a nervous sedative, and is applied by all the faculties, which proves that its pharmaceutical reputation is merited and confirmed. With us it is not only externally applied but internally as well. Its action seems to be over the nerve centers; it causes sleep without producing the cerebral hyperæmia which succeeds opium, and the active principles extracted therefrom. The sleep is tranquil and refreshing; it soothes bronchial cough and moderates the paroxysms in asthma and nervous cough. It has also been pronounced an excellent remedy against chronic hepatitis and obstruction of the liver.

Dr. Ott experimented on himself and says: "A half teaspoonful of the fluid extract was taken; soon began to feel drowsy, pupil dilated. In about three hours the effect passed off and I felt as well as ever, having no nausea, nor the peculiar shaking up of the nerves that ensues after opium. At 6.20 P. M. I took a teaspoonful of the fluid extract. Pulse 72, respiration 16. When swallowed it gave a pungent burning sensation

in the throat and stomach, succeeded by a feeling of warmth over the whole body. 6.40 P. M. pulse 62, respiration 16; arterial tension increased. 7.20 P. M. pulse 72, respiration 16. Salivation and sweating, pupils dilated. 8.45 P. M., pulse 72, respiration 17. Feel quite sleepy, disturbance of vision, itching sensation in the skin; the narcotic feeling kept up till about 10 P. M."

In toothache it is an absolute specific where a cavity exists. Saturate some loose cotton with the fluid extract and insert it in the cavity; the pain will vanish. I have treated many cases without a single failure. I experimented upon myself with small and repeated doses until I obtained the full physiological effect. The first sensation is a fullness and warmth through the chest, strong heart beat and full pulse; this is followed by great internal heat which slowly extends to the surface and is followed by perspiration. Should the medicine be still further continued a violent headache is the result, which passes off in a few hours. Enough must be taken to produce diaphoresis and sleep, and the administration stopped, otherwise headache will be the effect. My usual prescription is:

℞ Fl. ext. Jamaica dogwood, ʒ j.
Simple Elixir, ʒ iij.

M. Sig., a teaspoonful every half hour or hour until perspiration ensues.

In rheumatism I have used it advantageously to produce perspiration and sleep. In sciatica I prescribe it for the same surpose, using other adjuvant treatment as poultices of mullein leaves steeped in warm vinegar. I have also derived benefit from it in minute doses in angina pectoris, and frequently combine it with yerba santa and expectorants in the cough of phthisis. In intermittent fever it breaks up the paroxysm by inducing perspiration, and thus cutting short the attack. Warburg's tincture acts in this manner, and I thought it would have the same effect, in which view I was correct. Nature's method of cure is by diaphoresis, and any medicament which will produce a similar result is curative. Chloroform, nitrite of amyl and ether have been used successfully for aborting a chill, and I imagine that Jamaica dogwood can be successfully used likewise. The dose of the fluid extract is from half a drachm to two drachms. There are so many points of interest in the physiological action of the drug that I trust other physicians will investigate its properties and uses and report.

[Written for The Therapeutic Gazette.]

Manaca—Proximate Properties of the Plant.

A Thesis by John L. Erwin, of the College of Pharmacy, University of Michigan.

NATURAL order: Scrophulariaceæ; genus and species: Franciscea uniflora; common name: manacá.

Natural history.—Manaca is the name given by the Brazilians, to the Franciscea uniflora. It is a shrub, with alternate, oblong, acuminate leaves, shortly petioled; flowers are solitary and terminal, of a penetrating odor. There are several species known in Brazil under the name manacá, but the Franciscea uniflora is indigenous to the greater portion of equatorial America.

Therapeutical properties:—The whole plant, but more especially the root, is claimed to be antisyphilitic, and the interior bark to be nauseating and stimulating. In small doses it is claimed to be a resolvent, in larger a purgative, diuretic and emmenagogue, while in still larger doses it is said to be an acrid poison. It is claimed to be a remedy for rheumatic complaints. The medicinal dose of the fluid extract is from five to twenty drops, and of the powdered drug from eight to twenty grains.

The sample * which was sent me as being the manacá, and which I analyzed, had the appearance of being parts of the stem of the plant. It consisted of five pieces, each about one foot in length, and each being about one half inch in diameter, very tough and woody—the center being of a yellowish color and having a dark and very thin outer layer or bark. The drug, when finely powdered, has a yellowish brown color and an odor somewhat resembling that of corn meal.

The process which I have followed in the analysis of the above plant, was the one reported by Mr. Henry B. Parsons in the American Chemical Journal, Vol. 1, No. 6, and the results obtained are as follows:

Moisture: 6.5 per cent.

Ash:

- Total ash, 1.3 per cent.
  - Sol. in H_2O.
    - .32 per cent.
      - Na Cl.
      - K_2SO_4
  - Insol. in H_2O
    - Sol. in H Cl.
      - .55 per cent.
        - $Mg_3(PO_4)_2$.
        - $Ca_3(PO_4)_2$.
    - Insol. in H_2O.
      - " " H Cl
        - Sand.
      - " " K H O
        - Clay.
    - .49 per cent.

Benzol extract:

- Total ext. .64 per cent.
  - Sol. in H_2O.
    - Organic .04 per cent.
    - .06 per cent.
      - Ash .02 per cent.
  - Insol. in H_2O.
    - Sol. in H Cl. 0.2 per cent.
      - Negative results for alkaloids.
    - Insol. in H_2O
      - " " H Cl.
        - Removed by animal charcoal .1 per ct. (*a*.)
    - Sol. in 80 per c. alc. .4 per ct.
      - Not removed by animal charc'l 3 pr. ct. (*b*)
  - *a*—chlorophyll and resin.
  - *b*—resin.
  - Insol. in H_2O.
    - " " H Cl.
      - Wax.
    - " " 80 per. ct. alc.
      - Fixed oils.
    - .16 per cent.

.80 per cent. alcohol extract:

- Total residue.
  - Powder separating on cooling, .055 per cent.
  - Total organic matter and ash, 8.44 "
  - " ash .24 "
  - " organic matter 8.20 "

- Total residue. Sol. in H_2O.
  - Total org. matter and ash sol. in H_2O, 5.4 per. ct.
  - " ash " " " " .3 "
  - " org. matter " " " 5.1 "
  - " " " insol. " " 3.1 "

- Total residue, 8.3 pr. ct.
  - A. Sol. in abs. alc. 5.76 per cent.
    - a. sol. in H_2O
      - Tannin
      - 4.5 per cent.
        - Extractives.
    - b. insol. in H_2O, 1.196 per cent.
    - b 1. sol. in H Cl.
      - .116. per cent
        - Extractives.
    - b 2. insol. in H Cl., 1.08 per cent.
    - b 3. sol. in N H_4 H O
      - .872 per cent.
        - Colors. Acid resins.
    - b 4. insol. in N H_4 H O
      - .208 per cent.
        - Colors. Neutr'l resins
  - B. Insol. in abs. alc., 2.54 per cent.
    - c. sol. in H_2O
      - 1.5 per cent.
        - Colors. Extractives.
    - d. insol. in H_2O., 1.04 per cent.
    - d 1. sol. in H Cl.
      - .904 per cent.
        - Negative results for alkaloids.
    - d 2. insol in H Cl.
      - .036 per cent.
        - Resins. Extractives. Colors.
  - Cold water extract 2.72 per cent.
    - Gums.

* I am indebted to Mr. Geo. S. Davis, of Detroit, for the sample I analyzed.

Acid (H_2SO_4) extract: Glucose, * 19.5 per cent.
Total acid extract, 46.27 pr. ct. { Starch and isomers, 17.55 pr. ct. / Extract not starch, 28.72 "
Alkali (Na H O) extract, 3.742 per cent. { Coloring compounds. / Mod. of pectic acid.
Crude fibre and ash, 38.02 per cent.
Total nitrogen, .82 per cent.
Total nitrogen as albumenoids, 5.125 per cent.
Recapitulation:

Extract by benzole,	.64	per cent.
" " 80 per cent alcohol	8.3	"
" " cold water,	2.72	"
" " acid (H_2SO_4)	46.27	"
" " alkali (Na H O)	3.74	"
Crude fiber and ash	38.02	"
	99.69	"

In the above I wish it understood that the accuracy of the results, as obtained, is probably accidental and should not be attributed to any skill in manipulating on my part, as from the nature of the material analyzed, as well as of the process used, such accurate results are hardly to be expected.

I think the process reported by Mr. Parsons could be improved by requiring a greater length of time for the extraction by each solvent, and I think two hours for each gramme of the sample taken, in the extraction by benzol, and four hours for each gramme of sample, in the extraction by eighty per cent. alcohol—the time for the action of the other solvents being proportionally increased—would be no waste of time, but on the contrary would obviate the danger arising from the incomplete extraction of the drug by the different solvents used. I also think that more satisfactory results, and, in fact more, accurate results, would be obtained in case ten grammes of the sample (instead of five as given in the process reported) were used, as in many cases in analyzing a plant the amount extracted by the different solvents from five grammes of the sample, is not in sufficient quantity to apply qualitative tests for the many organic constituents of plants, and obtain definite reactions.

[Written for the Therapeutic Gazette.]

Mania a Potu and Digitalis.

By Edward C. Huse, M. D., Rockford, Ill.

THREE cases of this affection which have recently come under my professional care, and which were treated with heroic doses of digitalis, furnish some considerations worthy the notice of my brethren.

The prompt subsidence of the delirium in two of them was very noticeable, especially as this symptom was extreme. The third, which was characterized by excessive debility and muscular tremor, improved within three days under the digitalis treatment, more rapidly than with any means I have yet employed in many years.

This disease, whether it occur in the neophyte or the old stager, is notable for the element of debility more than any one expression which is present. It is not requisite to observe the flaming countenance or the swollen and blood-shot eye, to know that there is cerebral engorgement; the excited and nerveless manner, the hurried yet incoherent language, the tremulous and indecisive fingers, the wavering and purposeless gait, bespeak profound exhaustion of the central nervous system. The rapid and weak heart, the gastritis often, indeed, usually present, the terror stricken shrinking of these patients. All these symptoms are denotive of a local and general functional paralysis, of toxic origin, which indicates treatment of a supporting and sustaining kind from the outset. These patients die, when they die at all, of asthenia. Whether death ensues from pulmonary œdema, from cerebral effusion (convulsions or coma) or from cardiac syncope, the implication is the same—exhaustion.

To meet this indicatio morbi, digitalis seems to me nearer a specific than any other remedy. I am aware it was used and extolled by Bence Jones long since, but rather, it seems, from empirical reasons, than a recognition of its true therapeutic principles as a cardiac assistant. The heart is the organ, the engine of central force, on whose strength alone we can depend amid the storm. Upon its contractility solely can congestion in remote organs be removed—and the action of digitalis seems to me to encourage this contractile condition in a very decisive manner.

Case 1. J. M., æt. 30, had been on a spree for two weeks, during which he had eaten little or nothing, and says he did not sleep at all. Pulse 120, temperature 100°. Great fear of dogs, which he said filled the room. One half ounce of tincture digitalis, given in sweetened water, to be followed in three hours by another similar dose. At the end of the prescribed time he was calm and more rational,—pulse 108, temperature 100°. The second dose of one half ounce was given, followed by twelve ounces of good beef tea. In a few minutes he fell asleep, and slept nine hours, awaking quiet and sensible. Pulse 88, temperature not taken. To have ten grains cinchonidia sulphate, night and morning.

Case 2. July 2d, 1880. J. C., æt. 52, native of Ireland. Has been a moderate drinker many years, but for the last six months has drunk heavily on account of trouble. Had an attack of "horrors" some four years ago. Countenance haggard and very pale, eyes wild and ferocious, manner excited, tongue coated and tremulous, hands continually at work in aimless picking at his sleeves, vomits everything, he says; great terror. The whole contents of Noah's Ark seem passing in interminable procession, mocking, scowling and threatening. Pulse 158, temperature not taken owing to patient's violence. Thirst intense. One ounce of tr. digitalis given in syr. acac. This was vomited in an hour or so, and was followed by another, with the injection also of one-twentieth grain atropia sulph. hypodermically. The pulse, within half an hour, went down to 104, and somewhat intermittent, though full. Asleep and sweating profusely. Occasional hiccough. At 11 P. M. was awakened, and ℥ iij of beef tea given, on which he immediately fell asleep, and remained quiet till 2 A. M. At this time he was more rational, but shivering violently and hurried in man-

* This glucose does not exist in the plant, but was formed in the analysis, by boiling the drug with a dilute mineral acid (H_2SO_4) I used thus converting the starch and amorphous isomers of the drug into dextro-glucose. And the above glucose is used as a means for determining the per cent. of starch and isomers. (The per cent. of glucose formed multiplied by .9 gives the per cent. of starch and isomers.)

ner. Thirst intense. One ounce of tr. digitalis again given. 4 P. M. pulse 104, temperature, which was taken in axilla with some difficulty, 103°. Sweating profuse. To have beef tea every four hours during the day.

July 4th, 8 A. M. Has slept at intervals through the night; pulse 100, debility extreme. To have cinchonidia sulph. grs. x, and ʒ ij tr. digitalis every three hours. Sinapisms to epigastrium which, was very tender. Hiccough continues. Urine scanty and loaded with urates. Tremor less marked. Evening. Much improved; pulse 88, temperature 98.5°; rational; does not remember much of yesterday. July 5th. Syr. phosphates ferri, quiniæ et strych., ʒ j ter in die. Discharged convalescent.

The third case was substantially like the first, except that the delirium was mainly of aural rather than ocular delusions. The length of this article forbids further allusion to it than to stay that it yielded well to three doses of digitalis of half an ounce each.

To summarize: debility and congestion, which are in this disease interchangeable terms, are overcome, in my judgment, by the tonic influence of this drug, in large doses, upon the heart. Opium and chloral are unsatisfactory. Both of them debilitate. Still further, both of them paralyze—bromides are nearly inert. Coca I have not yet tried, but should consider it also valuable from analogy.

[Written for the Therapeutic Gazette.]

Monarda Fistulosa (Wild Bergamot).

By C. M, Woodward, M. D., Tecumseh, Mich.

SINCE the introduction of this new remedy for the cure of intermittent fever, last autumn, I have had the privilege of testing the very excellent fluid extract of the plant, manufactured for me by Parke, Davis & Co., of Detroit, especially in regard to dosage, and find that the dose as laid down by this firm, (before trial was made of their extract) was somewhat too small. Upon repeated trial I find that one fluid drachm in water, every three hours, beginning when the fever is highest, and continuing the remedy until the fever is interrupted, or until its sensible effects (prickly sensations all over the body, like that of prickly heat or of profuse sweating) are established is the proper dose and mode of administration for an adult. Of course a proportionately less dose should be given to children, from fifteen to forty drops according to age. In these doses the extract has not disappointed me when the case has been an uncomplicated intermittent, and I much prefer it to quinine or any other anti-intermittent. Since my article was penned for the December, (1879) number of New Preparations, I have treated many cases of intermittent fever solely with this remedy, and have no cause to complain of any lack of success with it. My object in speaking of the dose was that the medicine might not fall into disrepute from a lack of success due to insufficiency of quantity. Thus far I have treated about thirty cases with this remedy, and can record but one case of failure, or one in which I deemed it advisable to use any other remedy in connection with the monarda. I do not claim for the monarda fistulosa that it is a never failing specific for the cure of uncomplicated intermittent fever; but this much I do say, it has certainly proved for itself the possession of virtues and powers, reasonably commanding the attention of the medical profession, and a further trial.

[Written for the Therapeutic Gazette.]

Sarracenia Flava.

By A. J. Roe, M. D., Taylorville, Ill.

AT this season of the year when prompt measures are needed to check the diarrhœa in the ranks of the little ones in our large cities, I desire to call the attention of the profession to the valuable properties possessed by sarracenia flava in such cases. Having used the remedy with prompt success in many cases during the past six years. I am well satisfied in my own mind, that it is superior to any other remedy, or combination of remedies, in the so-called summer complaint. In such cases I usually combine it with the subnitrate of bismuth, as follows:

℞ Ext. sarraceniæ flavæ fluidi, ʒ ss
Bismuth. subnit., ʒ ij
Syr. simplicis, ʒ ss
Aquæ, ʒ jss

M. Sig. Teaspoonful after every operation of the bowels. The bismuth is added to the above combination to allay the usual gastric irritability.

The above combination has given me prompt results in a large number of cases. In ordinary cases of diarrhœa occurring in the adult, whether acute or chronic, fifteen drops of the fluid extract in water, after every movement of the bowels, will speedily produce a cure. I am satisfied that the usual treatment pursued in most cases of infantile diarrhœa, that of giving opium combined with astringents, is bad practice. The sarracenia will not bind up the bowels or derange the system in any manner, but on the contrary will prove a most excellent tonic in all debilitated conditions.

Reports on New Remedies.

[Written for the Therapeutic Gazette.]

Dyospyros Kaki.

By John A. Henning, M. D., Red Key, Ind.

THIS tree is more commonly called Japanese persimmon. It is indigenous to Japan and the East Indies. It has not been before the profession for more than a year or so, and hence we have meager reports from its use. I have been using the fluid extract of the drug for about eight months with very flattering results.

Mr. William Perry, of New Jersey, is now trying to naturalize it in the United States. The physicians of the Bermuda Islands have been using this remedy for sometime with good results in all diseases of the mucous membrane. It said to be almost a specific in diarrhœa, dysentery, cholera infantum, and catarrh of the stomach and bladder. But this statement must be received with a great deal of allowance, as specifics are extremely rare.

I have administered the Japanese persimmon in dysentery, diarrhœa, cholera infantum and catarrh of the bladder, and find it, by close observation, in all of the above diseases to be an estimable tonic, astringent, whenever and wherever the mucous tissues are involved. But when there is an inflammatory condition of these tissues, as in dysentery, it must first be allayed, when the kaki will act promptly in checking the excessive discharge.

We are now in the midst of those summer diseases, such as dysentery, diarrhœa, cholera infantum and cholera morbus, and I find the fluid extract of Japanese persimmon, in doses of ten to forty minims every few hours, to act very promptly and satisfactorily in cases in which the inflammatory disturbance has first been quieted. It is useless to give it in this condition while inflammation exists.

I do not believe there are specific remedies to cure certain diseases, but are of the opinion that this remedy in question having the physiological action indicated will be found excellent in leucorrhœa, gleety discharge of the urethra, and in mucous dyspepsia, as well as in diarrhœa and the latter stages of dysentery and cholera infantum. Having used it in all the above forms of diseases as specified, I can thus cheerfully recommend it to the profession as being a superior tonic astringent, when we desire the action of such remedy, and the indications are often present, especially in summer diseases.

[Written for the Therapeutic Gazette.]

Rhamnus Purshiana.

By E. Thompson, M. D., Newton Upper Falls, Mass.

I HAVE used cascara sagrada since last March in nine cases of obstinate constipation, and have no failure to report up to the present time. My first experience with this remedy was a little singular, and I desire to submit it as one of the possible explanations for the non-success of the practice of some physicians: In the summer of 1879 I had two patients who suffered extremely with constipation, and they taxed my ingenuity to keep them in order without restoring to enemas. Having seen favorable notices of the action of cascara, I resolved to test it, and made inquiries for it of several druggists in Boston, but gained no knowledge, as they were not familiar with the remedy. Finally one druggist procured a six ounce bottle of the fluid extract. I prescribed ten drop doses night and morning in a little sweetened water. It acted like magic. A few weeks later a patient having had his prescription refilled, returned saying the medicine did not have the usual effect. I ordered an increased dose, but the next day he reported that twenty drops had been taken every hour during the day with no effect on the bowels, and that he was obliged to resort to other means to relieve them. In March, 1880, the mother of the other patient, a little girl of 3 years, said to me, "the bottle of medicine you last gave my little girl does not relieve her as the first sample did." A look at the bottle showed a thick muddy sediment, and the original package told the same story. So the question about the medicine having lost its property was solved. I gave the little girl a sample procured from a house whose name was a guarantee of the proper quality of the drug, and ordered five drops night and morning. Its action was prompt, and at the end of the third week the mother discontinued its use, since which time there has been no further necessity for it.

[Written for the Therapeutic Gazette.]

Berberis Aquifolium.

By A. H. Henetson, M. D., St. Clairsville, Ohio.

DURING my charge of our county infirmary I had occasion to test berberis aquifolium in several cases of long standing syphilis. The results were such as to cause me, in justice to the drug, to report them:

One case, that of a young woman who had been an inmate of the institution almost two years when I took charge, and who had been under the best of medical treatment, without improvement, all through her stay in the house. She was covered wish syphilitic rupia, and was so fearfully disfigured and repulsive that she often wished herself dead.

Inasmuch as she had faithfully tried all the old remedies, and as I had experienced some evidence of the power berberis has in such cases, I put her on twenty drop doses of the fluid extract and applied iodoform in cosmoline locally. Her improvement commenced almost immediately, and she was, apparently, cured when I gave up the institution at the end of my second term.

A second case: An Irishman with tertiary syphilis; the lower end of tibia was so badly necrosed as to render it necessary for me to remove it. I placed him upon berberis aquifolium and he recovered rapidly. Several nodes upon the arm, head, and other parts rapidly disappeared.

It is my intention, as soon as my engagements will allow, to report on these cases more fully and also to report some other cases for publication.

[Written for the Therapeutic Gazette.]

Sabbatia Campestris.

By W. S. Newlon, M. D., Oswego, Kansas.

MISS Mary C. Mustfelt, a noted entomologist and botanist, of St. Louis, in a late paper, says there are periods of abundance and non-abundance of annual plants, and says the sabbatias appear only once in seven years. There is so close a resemblance between the animal and vegetable kingdoms, or the flora and fauna that I suspect the gifted lady is correct.

Among animals we have a similar occurrence in the migratory locusts, caleoptenus spretus and the harvest fly, or cicada septemdecim. They come to us periodically and disappear. These hexapods have the same causes for their appearance and disappearance which the plants have, and that is the seasons—wet seasons produce one and dry seasons the other. The sabbatia campestris which grows here is one of the best North American tonics and does best in wet seasons. It is a beautiful plant and no garden is more tastefully ornamented than the sections of our prairies in which it grows. For an antiperiodic, tonic and appetizer none of our indigenous herbs are better. In my practice I like the remedy more and more as I make its acquaintance. American physicians should give preference to indigenous remedies, and I pledge my word they will find a valuable one in the Kansas beauty, the sabbatia campestris.

This plant was until recently known as S. stellaris,

[Written for the Therapeutic Gazette.]

Berberis Aquifolium.

By H. B. Stanley, Georgetown, Cal.

ABOUT a year ago I commenced to experiment with berberis aquifolium and this is the result: I had about a gallon of the strong tincture of the root made at a time, on the formula for tincture cinchona. I used it freely in all cases of malarial fever, with happy results.

About six months since Mr. J. B. P., æt. 38, came to me complaining of indigestion, and that he felt weak, languid, and at times feverish. He had had, some five years previous, an attack of syphilis, for which his physician gave him large doses of mercury and iodide of potassium. On examination I found his pulse weak and feeble. His tongue was slightly furred, his eyes sunken and bloodshot. He was suffering also from extreme atrophy of the testicles, the right testicle being no larger than a small filbert. He complained that he had been practically impotent for over a year, and in fact had no desire. I compounded the following prescription for him:

℞ Fer. et quin. cit.. ʒ ij.
Tinct. cantharis, gtt. xxx.
Tinct. berber. aquifolii., ʒ xvj.

M. Sig., take two tablespoonfuls fifteen minutes before each meal.

In a week he returned and said he felt better than he had felt before for years. His pulse was fuller and steadier, his eyes were more lively and his testicles had actually perceptibly increased in size. This was six months ago. I followed the above treatment with slight variation for nearly three months, when I pronounced him entirely well. He is, at this date, enjoying good health with no appearance of a return of the atrophy.

[Written for the Therapeutic Gazette.]

Jamaica Dogwood—Piscidia Erythrina.

By J. A. Larrabee, M. D., Professor of Materia Medica and Therapeutics, and Diseases of Children, in the Hospital College of Medicine, Louisville, Ky.

I REGARD Jamaica dogwood as a decided success. The tests to which I have subjected it were such as to thoroughly try it. I have employed it in several cases of inveterate and long standing bronchial irritation, and in cases of thoracic pain due to nervous debility and excessive lactation. Any physician who has had cases of this nature to treat, (and few practitioners miss them) will have cause for gratitude after placing them on Jamaica dogwood. Opium from its after effects, and owing to frequent idiosyncrasies on the part of the patient, as well as from the liability of contracting the opium habit to which its employment lays the patient open, is an article which all conscientious practitioners dislike to administer in these cases. But until Jamaica dogwood was introduced, opium, in spite of its drawbacks, had frequently to be given.

I have also employed the drug in several cases of most severe hemicrania, tic douloureux, painful muscular spasms and rheumatism, in all of which I have been very much pleased with its action.

Correspondence.

Cascara Cordial—Damiana.

A sample of this elegant elixir, which I have been submitting to a test, has produced very excellent results. A gentleman who has been one of my patrons for a number of years, has given me a considerable amount of trouble because of the chronic constipation with which he has been afflicted. The whole list of aperients, cathartics and intestinal tonics had been tried in vain as far as regards permanent benefit. I placed him on cascara cordial, but the very pleasant taste of the mixture made it difficult for me to induce him to persevere in its use. His was an aggravated case, and he thought that relief could only come through something "powerful," that is, I suppose, something which by its taste and smell suggested "power." The dose was gradually increased until gentle laxation of the bowels was secured. It was then continued at this dose until the evacuations became regularly diurnal, after which it was discontinued. No return to the cordial has thus far been necessary.

Damiana is an article of much value. I have formed this opinion of it after a two years' trial. It does not cure all cases of impotency, but neither does quinine cure all cases of ague. Medicine is not a science of mathematical exactness, and in drugs of the most decided properties, there is a margin of uncertainty as to their effects in individual cases. Damiana is, however, a decided aphrodisiac.

R. C. KINNAMAN, M. D.

ASHLAND, Ohio, July 13, 1880.

The International Sanitary Congress at Turin.

I am requested by Professor Hyacinthe Pacchiotti to have the correct date of the coming International Congress of Hygiene, at Turin, announced in the American papers. The Congress will open on September 6, and close September 12; not in August, as has been wrongly announced.

The King, the Ministers, the Maire, the Prefects and all the officials will take part; the Minister of Foreign Affairs invites all foreign governments to send delegates; a reduction of 30 per cent. on the railway fares is also announced.

Very Respectfully,

JNO. K. ALLEN.

LANSING, Mich., July 26, 1880.

Liquor Ergotæ Purificatus.

I have used a sample of liquor ergotæ purificatus and am much pleased with the result. Subcutaneously, five minims is quite sufficient to produce strong uterine contractions. In a case of miscarriage in which the fœtus had passed twelve hours, the placenta was still in the uterus, and the os was contracted so as not to admit my finger; I gave five drops subcutaneously, and in ten minutes the uterus was entirely emptied; the hæmorrhage ceased with the expulsion of the secundines.

I have used this preparation of ergot in quite a number of cases, in all of which it acted just equally well with that above reported. Ten drops seems to be rather a large dose in some cases.

GEO. H. CANNON, M. D.

NEW LEBANON, Ind.

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Chian Turpentine.

THIS old remedy—known to the profession many years ago, and subsequently almost entirely forgotten—has been revived and vested with unusual interest through a report by Prof. John Clay, of Birmingham, published in the London Lancet, of March 27th last. It is scarcely necessary to inform our readers, at this stage, that Prof. Clay claims for Chian turpentine curative properties in cancerous disease, particularly of the female generative organs, and certainly his report goes a great way to establish his claims. His theory of its modus operandi is that it acts directly as a poison on the cancer cells, thus causing their death.

Although Dr. Clay's experience was confined to a period of but twelve months previous to his report, his opportunities of observing cancerous affections in the large eleemosynary institution with which he is connected, were abundant, and in none of the cases on which he tried the virtues of Chian turpentine had he failed to notice, at the date of his report, marked improvement, while in some there was apparently complete recovery. Such results were sufficient, in England, where the profession evidently look less askance at a remedy because it is novel than they do in this country, to induce immediate and extensive trials of the drug. The results were extremely contradictory, some observers reporting that they had seen no favorable effects whatever, while others verified Dr. Clay's statements. Such discrepancy led to an investigation when it was found that there were spurious articles in the market. The sudden demand soon exhausted the stock of Chian turpentine on hand, and awaiting the collection of more, Canada balsam and turpentine resin were largely used as adulterants, the former of these two articles resembling the Chian turpentine so closely as to require an expert to detect any difference. So firmly convinced is Dr. Clay of the virtues of the genuine article that he ascribes all failures to the use of spurious varieties.

In view of the above it becomes the physicians of this country to guard against imposition. The history of other remedies gives assurance that the sophistication of Chian turpentine will be attempted as soon as the demand arises.

It is unfortunate that the sample of the drug which Dr. Clay employed should have been set up as the criterion for the genuine Chian turpentine. Dr. Clay's sample had been long in stock, many years probably, and had undergone changes in its physical properties due to age. It had become hard and more or less brittle, and hardness and brittleness will thus be apt to be regarded as essential properties of the true drug. The authorities on the subject describe it to be a viscid substance leaving the inference that the hardness and brittleness are due to vaporation and oxidation. Samples, moreover, recently imported from Cyprus, and regarding whose genuineness there is no room for doubt, are not hard and brittle, but answer the description given by the authorities. The old stock, which for many years has literally been a drug on the market, has been almost or entirely exhausted, and the value of Chian turpentine must hereafter be based on the newer supply. It will be useless longer to look for the physical properties which characterized the samples upon the use of which Dr. Clay based his reports. These properties can come only through age.

A practical test of its purity is said to be the specific gravity. Recent Chian turpentine should stand between 1.040–1.050. The dried brittle variety floats in a cold solution containing eight per cent., by weight, of concentrated sulphuric acid, and sinks as soon as this liquid has been diluted with three to four times its volume of water; all the adulterants used, being lighter than water, its behavior toward this mixture would indicate them if present.

Genuine Chian turpentine must contain between eighty and eighty-two per cent. of resin, soluble in alcohol, and from five to six per cent. resin soluble in solution of potassa. These tests should be applied after the volatile oils have been removed by destillation. The proportion of volatile oil varies considerably in different samples; it is larger in a soft recent specimen than in one which has become brittle from age and exposure. Such old and brittle specimens are no longer completely soluble in benzine, while this liquid dissolves entirely the recent variety.

Genuine recent Chian turpentine has the consistence of honey, a greenish-yellow color, an odor similar to fennel and turpentine and a bitter taste. Canada turpentine, which is the most common adulterant, can easily be detected by the behavior of an ethereal solution of the sample, when mixed with alcohol. If the sample is pure, the mixture will remain clear, while in presence of Canada balsam, it becomes milky, and clears only after boiling. If twenty-five to fifty per cent. of Canada balsam is present, the sample will give a clear solution in chloroform, while the pure turpentine gives a turbid mixture.

Dr. Edmund Andrews, of Chicago, raises an interesting question regarding this drug, or rather regarding the combination employed by Dr. Clay. He reports in the Chicago Medical Journal and

Examiner for the current month, that "experiments performed by himself and others would seem thus far to corroborate his (Dr. Clay's) assertions," but that it is too soon to say whether the improvement will be permanent. The question which he raises is whether Dr. Clay is not mistaken in giving Chian turpentine, rather than sulphur, which enters largely into his prescription, the primary place. The following is Dr. Clay's formula: Chian turpentine, six grains; flowers of sulphur, four grains; to be made into two pills, which are to be taken every four hours. "The malignant element in cancer," says Dr. Andrews, "appears to be the non-adherent, multiplying cells which fill its cavities, and, so far as we can judge, its disastrous results are dependent on the enormous power of reproduction of these bodies. If there be a substance in the materia medica which can act upon these cells as antiseptics act on bacteria, by destroying their life, or can modify their vitality, so as to check their multiplication, as arsenic checks the production of ephithelial cells in scaly diseases of the skin, such a remedy will cure cancer. Cells already in existence would either be absorbed or remain harmless, if they no longer multiplied. These cells, in short, suggest to one many analogies with such low forms of organic life as are destroyed by sulphur, arsenic, carbolic acid, etc. The analogy is vague, and not implicitly to be trusted; nevertheless it strongly suggests that the efficacy of this combination may be due to the cell-destroying power of sulphur or of sulphurous acid, and that the turpentine may be only an adjuvant."

Dr. Andrew's suggestion is eminently practical, and it would be interesting to know whether, in the cases of reported failure in the use of Chian turpentine, sulphur entered into the combination administered. In view of its possible importance we would suggest that the sulphur be always administered with the turpentine, and in strict conformity with Dr. Clay's formula.

Testing Drugs.

THERE have been, and, doubtless, there will continue to be, differences of opinion among honest men on all subjects other than those, statements and views regarding which it is possible to refute or verify through a purely mathematical process. Where it is at all possible for an element of uncertainty to enter there will the different shades of mental differences give rise to disputation. Unfortunately medicine is inherently a science by no means exact, and all attempt, to apply to it the so-called exact methods have been, and always will be, failures. The element of vitality, which must necessarily be a factor in all medical calculations, is one which is as different as are the faces of the individuals under consideration. As no two men are alike in appearance, so are no two alike in temperament or in physical constitution.

In view of the above facts it is not strange that there are differences of opinion regarding the most effective means of advancing medical knowledge. These differences are, moreover, multiplied by the diversity of views which are practically entertained regarding the aim and object of medicine as a science. We say *practically* entertained, for there can be no room for disputation on theoretical grounds; no one will be found to explicitly deny that the highest aim, the culmination, of medicine, is therapy. But therapy has become unpopular in certain quarters, in which the culmination of medicine is regarded to be one or several of the other divisions. Medicine may be likened to an arch into the construction of which the various stones, anatomy, physiology, pathology, chemistry, therapy, etc., have entered. Without either of these stones the structure would be imperfect, but without a keystone an arch is impossible. Therapy is the keystone of medicine. There is a class of men, and they are found principally in the schools, who maintain, practically, if not in theory, that there are other stones of more importance than the keystone. They give great care to the perfecting of the abutments and to individual voussoirs (and that is essential) but they are notoriously inattentive to, and in many instances even entirely neglect, the keystone. Others there are who, giving too little attention to the rest, affect to devote themselves to the perfecting of the latter. These were the empirics of old, and are the charlatans of to-day.

It will be evident, on the most superficial consideration, that neither of the above classes can have a proper conception of the most effective means of advancing medicine. These means can only be suggested by him who properly (to return to our simile) appreciates the relative importance to be attached to each of the stones in the arch. The low estimate which many practically attach to the importance of therapeutics and the corresponding relatively undue appreciation of other divisions of medicine, are evidences of weakness rather than of strength. It is scarcely less absurd to base medicine on empiricism than to regard (as many practically do) anatomy, physiology and pathology as more important than therapy. That organism is the strongest which is the most evenly developed and the most fully rounded in all its parts. A properly developed man, mentally or physically, has no excrescences.

With the above points conceded, (and few will dispute them), we maintain that the development of the highest aim and object of medicine lies in the hands of the general practitioner. He has, during his college career, received a thorough training in the non-practical branches, at the hands of the very men who regard these branches of paramount importance, and with this foundation securely laid he is prepared to conduct those observations at the bedside, involving the progress of disease and the action of drugs, on which all knowledge in medicine depends. All attempts to advance therapeutics which leave out of account clinical observations must prove abortive. With the discrepancies which exist due to the differences in temperaments, the best that can be done, and the most that can be hoped for, in regard to attaining a knowledge of the properties of a drug, are to draw intelligent conclusions regarding it from its action as observed in a great number of cases. Herein lies the secret of success in therapeutics, and herein only. Pathology, physiology, chemistry, etc., are useful only as they are aids to proper observation. The physiological method of studying the properties of a drug is useful only in so

far as it points in a certain general direction; it can never, in the very nature of things, determine that a particular drug will have a particular effect under particular diseased conditions. The disturbing factor, disease, always of indefinite quantity, must always make the deductions drawn from the physiological method at best theoretical and unreliable as a guide to the therapeutic properties of a drug.

We cannot do better than to close these remarks by a quotation from Alfred Stillé, M. D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania, and author of what is, confessedly, the most exhaustive and complete work on materia medica and therapeutics, extant. Prof. Stille says: "Hoffman, brilliant theorist as he was, has shown in his writings that he knew what limits to impose on theoretical speculations, and that, wherever their appropriate field may be, it certainly is not therapeutics. 'The primary and most solid foundation of therapeutical truth and medical judgment is,' he remarks, 'a detailed history of both patient and disease, in all points full and complete.' And in another place he says, 'There is no way of escape from the labyrinth of doubt created by controversy about the prowess of different medicines, except by carefully and diligently consulting the records of causes in which medicines have been found useful or injurious.' Two other great men of the same epoch have left a similar judgment on record. 'The whole philosophy of medicine,' says Sydenham, 'consists in working out the histories of diseases, and applying the remedies which may dispel them; and experience is the sole guide.' Baglivi's admirable treatise abounds in similar expressions. 'The peculiar aim of practice is,' he remarks, 'to adjust all the weighty concerns relating to the cause of diseases, pursuant to the laws of experience. He who pursues a contrary course, and forms his notions of practice from the rules of theory, will never be a successful practitioner.'"

"In spite of the warnings," continues Professor Stille, "uttered by these and many other great men, the domain of therapeutics is, at the present day, continually trespassed upon by pathology, physiology and chemistry. Not content with their legitimate province of revealing the changes produced by disease and by medical substances in the organism, they presume to dictate what remedies shall be applied, and in what doses and combinations. Their theories are brilliant, attractive and specious, and they seem to satisfy a craving experienced by every reasoning man, for an explanation of the phenomena which he witnesses; but when submitted to the touchstone of experience, they prove to be only counterfeits. They will neither secure the safety of the patient nor afford satisfaction to the physician. Treatises which profess to furnish a method of treatment deduced from the pathology of a disease, are monuments of their author's self deception, and snares to those who seek in them reliable grounds of practice."

Clinical Reports.

GERMAIN to the subject which we have discussed above, is the question, How is the vast experience which each day furnishes, to be utilized to its legitimate end, the advancement of medicine? This is a question which has caused much perplexity and which many have vainly striven to answer. No class of physicians more earnestly desire its solution than those engaged in journalism, for none more keenly realize its importance and none so fully understand the desire of the profession in regard to it. The cry of the physician who is daily brought in contact with disease is for facts regarding remedies, and it is the medical journalist who first hears that cry. With an inconsistency, however, which probably never occurs to them, the very men who most feel the need of these facts are very backward, perhaps the most backward, in communicating to others the results of their own observations. It has been the aim and purpose of this journal to draw these gentlemen out, but the stereotyped excuse is lack of time. We would respectfully submit that such an excuse is not valid; no physician is so pressed that he cannot write for his medical journal. Having made this assertion, it is necessary for us to qualify it. Many men are too busy with practice to write such articles as they think they should write. Not only does time lack them, but the distractions of practice divert their minds from the literary groove. The trouble lies in the wrong estimate which they have formed of what an article for a medical journal should be. They do not like to attach their name to a simple report of facts. They imagine that the other readers of journals are different from themselves, and that they desire above all things fine spun theories and vague speculations clothed in nicely rounded sentences. They think, too, that an article for a medical journal should be of a standard length, to attain which if their own theories run out condensations from the text books must be added. For our part we should be glad if but few physicians had time for the preparation of such articles. The writer of them may fancy that he makes for himself a reputation for erudition, but he would scarcely feel complimented if he knew how coldly the editor welcomes them, and how few of the readers of the journal ever peruse them. He would, himself, not read such an article from the pen of another.

Some, again, plead their inability to present a readable article. To such we would say that while it is pleasant to receive such manuscript as can be handed directly to the printers without the requiring of any pruning, correction of orthography, or punctuation, or aught else, excellence in these regards is not the criterion of the worth of an article for a medical journal. Give us facts, perfectly bare if you choose, and we will supply the clothing.

We flatter ourselves that we have succeeded, to a degree, in eliciting many facts from our readers and that we have thus in turn succeeded in giving our journal a practical bent. To this fact we attribute the unparalleled success of the GAZETTE; it answers a deep dwelling desire in the busy practitioner. We are aware of the fact that a certain class in the profession do not look with favor on the journal because of our manner of conducting it. They are the theorists and speculators, to whom we have referre d, gentlemen whose knowledge of disease is derived principally from

the books, and who regard it as the greatest favor a patient can confer, to give them an opportunity for a post mortem examination. They are principally young men, who have not yet worked up a sufficient practice to convince them that there, many things in connection with the treatment of disease, on which the books shed but a dim light, and which neither the scalpel nor the microscope can reveal. When they shall have added years and experience, and have cut themselves loose from the leading strivings of the schools, where, in the very nature of things, it is possible for them to learn little else then theory —to lay the foundation of medical knowledge— they will find that their conceptions of medical journalism have undergone a change. In the meantime we regard their disapproval in the light of a compliment; were they to endorse us we should think that we were on the wrong track.

The following from the London Lancet embodies our views on the above subject, and we would that it were indelibly engraved on the minds of our readers. Certainly no journal of the present day has had greater experience with the "heavy" papers which some are wont to regard as the only ones that are valuable, and the following remarks are valuable not only in themselves, but as indicating the drift of professional sentiment in the matter of medical journals:

"The ultimate practical purpose of professional journalism is to give those in the daily exercise of the calling represented, information which shall be helpful in their labors, and therefore conductive to the public good. What can advantage this cause more than the prompt and rigidly accurate noting of the facts observed, knowledge acquired, and experience gained in actual practice? If busy men will jot down the little points that strike them, in their own way, without waiting to elaborate formal papers, and send them direct this office, we shall be happy to have them collated and presented in a form available for general information. The amount of clinical and pathological material wasted for want of this saving process must be very considerable. It is practically impossible for the great majority of practitioners to write lengthy reports of their cases. They have neither the leisure nor the inclination to do this. Nor are they always able to make the local societies the medium of communication with the profession, because the reading of a paper necessitates the trouble of first writing it, and then of attending to submit it. There is not opportunity for this performance, and many men shrink from it. Letter-writing is only less troublesome. Our suggestion is that practitioners should simply jot down a note of their observations in any rough fashion that occurs to them, and forward it duly attested. What more may be necessary we will do, in the hope of securing a large mass of valuable material from loss, and securing for patient and persevering observers the professional publicity to which their labors justly entitle them.

Vivisection—Does it Pay?

SCRIBNER'S Monthly for July contains an article by Dr. A. J. Leffingwell, on the profitableness of vivisection, which, although intended more particularly for popular perusal, has excited no little interest in the ranks of the profession. The style of the article is very pleasing, and the arguments couched in language which, though very dispassionate is, nevertheless, calculated to have a strong influence on the popular sentiment on this subject. Already professional gentlemen have commenced to offset this influence by articles in other secular journals, combatting the salient points of the paper. While on general principles it is regarded as unpolitic and unethical for medical gentlemen to take a professional subject into the secular press, the propriety of making an exception in this instance is apparent from the fact that the people, through the legislature, have it in their power to say whether or not vivisection shall be longer tolerated.

Dr. Leffingwell does not denounce vivisection *in toto*. He is physician enough to recognize what medicine owes to vivisection, and to know that the past is to a degree an earnest of the future; but he is also physician enough to know that vivisection is grossly abused in this country, and it is rather against this abuse than against the practice itself that he raises his voice. He takes the ground that any unnecessary suffering inflicted, is cruel and demoralizing, and that all vivisection performed merely to demonstrate physiological facts of no practical utility, and in themselves never called in question, is unnecessary. We agree with him and would add our condemnation of the ruthless barbarity which is every winter perpetrated in the medical schools of this country. History records some frightful atrocities perpetrated in the sacred name of religion, but it has remained for the enlightenment and humaneness of this century to stultify themselves by tolerating the abuses of the average physiological laboratory, all conducted in the name of science.

But it is our province to be particularly interested in that part of Dr. Leffingwell's article which touches on the services of vivisection to therapeutics. Some years ago when the British parliament was legislating on this subject, a Royal Commission was appointed to take the testimony of leading English teachers and scientists. This testimony strongly supports Dr. Leffingwell's position on the general question. Regarding therapeutics the paper has the following deducted from the testimony: "I confess that, until very recently, I shared the common impression regarding the utility of vivisection in therapeutics. It is a belief still widely prevalent in the medical profession. Nevertheless, it is a mistake. The therapeutical results of nearly half a century of painful experiments—we seek them in vain. Do we ask surgery? Sir William Ferguson, Surgeon to the Queen, tells us: 'In surgery I am not aware of any of these experiments on the lower animals having led to the mitigation of pain or to improvement as regards surgical details.' Have antidotes to poisons been discovered thereby? Says Dr. Taylor, lecturer on toxicology for nearly half a century in the chief London Medical School (a writer whose work on poisons is a recognized authority): 'I do not know that we have as yet learned anything, so far as treatment is concerned, from our experiments with them (*i. e.* poisons) on animals.' Dr. Anthony speaking of Magendie's experiments, says: 'I never gained one single fact by seeing these cruel experiments in Paris. I know nothing more from them than I could have read.' Even physiologists admit the paucity of therapeutic results.

Dr. Sharpey says: 'I should lay less stress on the direct application of the results of vivisection to improvement in the art of healing, than upon the value of these experiments in the promotion of physiology.' The Oxford professor of physiology admitted that etiology had, by these experiments, been the gainer, rather than therapeutics. 'Experiments on animals,' says Dr. Thorowgood, 'already extensive and numerous, cannot be said to have advanced therapeutics much.' Sir William Gull, said with fervor 'The cases bristle around us everywhere' in reply to a question whether he could enumerate any benefit resulting to therapeutics from vivisection. Yet excepting Hall's experiments on the nervous system, he could enumerate only various forms of disease, our knowledge of which is due to Harvey's discovery, two hundred years ago! The question was pushed closer, and so brought to the necessity of a definite reply, he answered, 'I do not say at present our therapeutics are much, but there are lines of experiment which seem to promise great help in therapeutics.' The results of two centuries of experiments, so far as therapeutics are concerned, reduced to a seeming promise!"

There is only one way to progress in therapeutics, and that is clinical observations—the noting of the action of individual drugs under particular diseased conditions. He who has the largest practice, and is the keenest observer, and who is the most systematic recorder of what he sees, does the most to advance medicine.

Michigan College of Medicine.

THE announcement of this College for 1880-81 has been received. It contains a reference to certain features which demand for it a more than passing reference, from the fact that they place the institution among the very first of the medical colleges, whose aim it is to raise medicine in this country from the low level to which it has sunk through the low standard (which amounts to no standard at all) for admission to its study, and afterwards into its ranks. It requires that its students shall give evidence of such a knowledge of English mathematics and Latin as will qualify them for "a pprofitable study and an adequate comprehension of scientific truths." It rightfully intimates in its announcement that that the time has gone by when it was necessary, in order to supply the demand, to admit those who did not possess these requirements. Doubtless there are many able practitioners to-day who could not when they entered the profession pass the preliminary examination which this college requires, and these are they, we venture to say, who will most warmly endorse the advance. They have felt the drawback and know that had they had the proper preliminary training it would have conduced to their more rapid advancement. The first few, probably ten, years which the improperly educated man spends in practice are wasted in his preparing for his life's work; and that be he never so conscientious, while it is feared there are many who never make up the deficiency. The physician who is not liberally educated before entering upon the study of his profession is very seriously handicapped; and were all of our medical schools to adopt a higher standard of preliminary requirement, they would confer an estimable boon, not only on the profession as a whole, but on the individual young men who seek to enter it.

Medicine is yearly broadening its boundaries and extending its limits into the collateral sciences; and the time is coming, as it should come, when the title of M. D., will imply as liberal an education as now does those of D. D. and LL. D. The time is coming, and should come, when the title of doctor of medicine will be a synonym for an educated and thoroughly refined gentleman—educated not merely on purely medical subjects, but possessed of that broadened mind which takes in the less practical, but scarcely less essential knowledge, necessary to culture. The young men who are now entering the profession will live to realize this, and they should in justice to themselves prepare themselves against that time.

The Michigan College of Medicine as a means to the bringing about of that time has an additional claim on the sympathy and support of the profession. It has received an endorsement from the profession of Great Britain which no other American medical school has received, its matriculation examination being recognized by the General Medical Council of that country. That it has also the endorsement of the profession of this country is attested by the fact that already upwards of fifty students have matriculated for the session of 1880-81, which opens next month. Such an opening presages well.

Detroit Medical College.

THE coming winter promises to be one of considerable activity in medical matters in this city. The annual announcement of the Detroit Medical College has also been received, and it bears evidence that this established institution has also caught the spirit of progress in medical education. It has adopted a standard of matriculation, advanced its curriculum and lengthened its requirement of attendance at lectures, to three sessions of six months each.

These evidences of progress must be very gratifying to all who have the interests of the profession at heart. The decided step forward which has been taken by our city medical schools is also a reason for pride to the profession of this city. Detroit has peculiar advantages and is otherwise admirably situated for a medical center. A city of 130,000 inhabitants furnishes an abundant supply of clinical material for all the wants of the student. Indeed the smaller amount it furnishes as compared with the great eastern medical centres, is an advantage. In the first place the student's mind is less apt to be confused by the too great profusion, and is less apt to be diverted from proper attention to that proper foundation which the successfnl practitioner must have laid in the non-practical divisions of medicine. It is possible for the student, that is during the first two or three years of his study, to devote too much attention to clinics. Without proper attention to the foundation the superstructure cannot be stable.

With the exceptional facilities which it offers, and the respectable standard of its schools, both for admission to the study and afterwards to the practice of medicine, Detroit will stand high in professional opinion as a medical center. The indications are that the new departure it has instituted will be endorsed during the approaching session by large classes.

The Coming Pharmacopœia.

WE find in the instructions issued by the Sixth Decennial Convention for the revision of the Pharmacopœia of the United States to the Committee of Revision and Publication appointed by the same, several paragraphs which call for a critical notice. Number 9, is the decision to abandon all measures of capacity and construct formulæ with use of parts by weight. We fear that such a measure would cause serious inconvenience, and somewhat of a revolution would be necessary in the administration of medicines. The pharmaceutist has too long felt the convenience of using measures of capacity, to substitute a more tedious method without protest. There would besides be the absence of a definite relation between the product resulting from such a method, and the dose administered to the patient, who is, from force of habit and reasons of convenience, instructed to take medicine by measure, *i. e.* by the teaspoonful, or wineglassful. Not until each patient is provided with a set of scales and weights would such a method be advisable.

No. 17. A resolution to omit the doses from the pharmacopeia is, to say the least, unwise. We think there should be some authority which would command universal recognition, in this country, on such an important point, and at the very least the minimum and maximum doses of lightly active or poisonous drugs should be given. In foreign countries it is usual, and in some even imperative for the physician to designate by a cautionary mark when he is consciously exceeding the maximum dose of a poisonous drug. As an addition to the tables which are to be appended to the pharmacopeia, it would also be desirable to have one giving the physical properties and chemical reactions of liquid preparations, such as tinctures, fluid extracts, etc., as this would not only furnish a means for their identification, but also give a method for their aproximate valuation, and aid greatly the establishment of a standard of uniformity. We have already in a former number expressed our opinion with regard to the advisability of making fluid preparations of highly active drugs, whether fluid extracts, tinctures or other kinds, by assay. It is to be regretted that no step has yet been made in this direction.

Sabbatia Campestris as a Stomachic and Intestinal Tonic.

PHYSICIANS are not infrequently driven to their wits end, and especially at the present season from some remedy to restore the tonicity of the alimentary canal after it has been seriously impaired, as it usually is, by the severe strain of cholera infantum or cholera morbus. The acute symptoms of the affection have been controlled, but, especially in the case of children, an atonic condition of the stomach and bowels remains, and unless it is relieved, the assimilative functions being impaired, a condition of marasmus developes. Our materia medica has no agent which is generally regarded as of especial application to this class of cases. Strychnia, iron, the bitter vegetable tonics are those usually depended on, but the dependence is frequently as on a broken reed. A remedy which will meet this condition is a desideratum.

Sabbatia Campestris, a plant to which attention was called by Dr. W. S. Newlon, of Kansas, a few years ago, has developed properties which would seem to idicate its peculiar fitness in the class of cases above referred to. It is free from tannic acid and may consequently be given in combination with iron. It has been employed with signal benefit in atonic dyspepsia, greatly facilitating digestion. We would ask a trial of it at the hands of our readers in the above conditions.

This plant was until recently known as S. stellaris.

Illustrations by Pictures.

ONE of the great contrasts between the School Books used by the fathers and mothers of the land, when young, and those now used by the children, is the use of pictures. As a curious instance of illustrating the meaning of words by pictorial illustration, the pictures in the new edition of Webster's Unabridged Dictionary in connection with the following twelve words, *Beef*, *Boiler*, *Castle*, *Column*, *Eye*, *Horse*, *Mouldings*, *Phrenology*, *Ravelin*, *Ships*, *Steam Engine*, *Timbers*, illustrate and define the meaning of more than 340 words and terms, as may be seen by examining the Dictionary.

Book Reviews and Notices.

A Treatise on Hygiene and Public Health. Edited by Albert H. Buck, M. D., American Editor of Ziemssen's Cyclopedia of the practice of Medicine; Instructor in Otology in the College of Physicians and Surgeons, New York; Aural Surgeon to the N. Y. Eye and Ear Infirmary. In two volumes. New York: Wm. Wood & Co. 1879. Detroit: E. B. Smith & Co. Muslin binding, $5 per vol. Leather binding, $6 per vol. Morocco binding, $7.50.

Volume I, Part I, Treats of Individual Hygiene. 1. Infant Hygiene, by A. Jacobi, M. D. 2. Food and Drink by James Tyson, M. D. 3. Drinking Water and Public Water Supplies (with plates) by Prof. Wm. Ripley Nichols. 4. Physical Exercise, by A. Brayton Hall, M. D. 5. The Care of the Person, by Arthur Von Harlengen, M. D.

Part II. Habitations. 1. Soil and Water, by William H. Ford, A. M., M. D., (illustrated). 2. The Atmosphere, by D. F. Lincoln, M. D., (illustrated). 3. General Principles of Hospital Construction, by Francis H. Brown, M. D., (illustrated).

Vol. II, Part I. Occupation.—1. Hygiene of Occupation, by Rodger S. Tracey, M. D. 2. Hygiene of Camps, by Charles Swart, M. B., C. M., M. D., (illustrated). 3. Hygiene of the Naval and Merchant Marine, by Thomas J. Turner, A. M., M. D., Ph. D. 4. Hygiene of Coal Mines. by Henry C. Sheafer, Esq. 5. Hygiene of Metal Mines, by Rossiter W. Raymond, Ph. D.

Part II. Public Health. 1. Infant Mortality—Vital Statistics, by Thomas B. Curtis, M. D. 2. Adulteration of Food, by Stephen P. Sharpless, S. B. 3. Public Nuisances, by Rodger S. Tracey, M. D. 4. Quarantine, (with reference solely to sea port towns) by S. Oakley Vanderpoel, M. D., LL. D. 5. Inland Quarantine, by S. S. Herrick, M. D. 6. Small-Pox and other Contagious Diseases, by Allen McLane Hamilton, M. D., and Bache Mc E. Emmett, M. D. 7. The Hygiene of Syphilis, by F. R. Sturgis, M. D. 8. Disinfectants, by Elwyn Waller, Ph. D. 9. Village Sanitary Associations, by Rodger S. Tracey, M. D. 10. School Hygiene, by D. F. Lincoln, M. D.

The introductory of this valuable work was written by John S. Billings, M. D., U. S. Army, than whom no one is more competent. In this introductory, after preparatory remarks, he discusses the causes of disease and its jurisprudence. He recognizes that sanitary science does not at present possess any well-recognized and satisfactory standard, yet at the same time it is progressive and is benefitting the human race. We believe with Dr. Billings that although much has been learned and much done, yet sanitary science and hygiene are yet in their infancy, and to make it complete will require yet much more labor and observation.

Buck on Hygiene and Public Health is the first great American work on the subject, and will do much to popularize the subject and call the attention of not only the people, but the medical profession to its merits and for their own protection, The articles on infant hygiene, and infant mortality, more particularly, have failed in their conception, as the essence can be found in the ordinary works on diseases of children.

We believe that true sanitary science and hygiene should confine itself to the discussion of all those causes that produce disease external to the animal economy itself, and if possible teach the methods of their prevention. To this end should be its great mission.

We cannot but congratulate the editor, the publisher, and the writer of this great work on sanitary science and hygiene, upon the result of their labors. In this day of progress the book should be in every medical library, and there is now no excuse for the medical practitioner and sanitarian that he is not up in this new and popular science.

Contributions to Orthopedic Surgery, including Observations on the Treatment of Chronic Inflammations of the Hip, Knee and Ankle Joints, by a new and simple method of extension. The Physiological Method and Lectures on Club-Foot delivered at the College of Physicians and Surgeons New York (special course). By Jos. Hutchinson, M. D., Surgeon in Chief to the Brooklyn Orthopedic Infirmary, etc., etc., etc.
New York: G. P. Putnam & Sons, 182 Fifth Ave. Detroit: E. B. Smith & Co. Price, $1.25.

These lectures comprise the author's personal experience in this interesting class of deformities both in hospital and private practice. They have appeared in the Medical Record, New York, 1878-9, but have been revised and reproduced in this form for the benefit of the student and practitioners generally. The subject is fully illustrated. Knowing the author, as we do, we cannot but recommend the book and its teachings to all those who are interested in orthopedic surgery. It is a valuable aid in the treatment of the deformities of the feet and joints.

Photographic Illustrations of Skin Diseases. By George Henry Fox, A. M., M. D. Parts 11 and 12. Forty-eight colored plates taken from life. Part 11—Herpes Facialis, Hydroci Ballasium, Erythema Circinatum, Erythema Exfoliatum, Purpura Simplex. Part 12—Coruna Cutanea, Alopecia Areata, Morphœa, Scleroderma, Sarcoma Pigmentosum.
New York: E. B. Treat, 757 Broadway. Price, $2.00 per part.

We have heretofore expressed our opinion as to the value of these illustrations. They have gone beyond our expectations, and hence we recommend them to all who have any interest in diseases of the skin.

E. B. Treat announces to the profession a companion work entitled "Photographic Illustrations of Cutaneous Syphilis," which will appear shortly. The reputation acquired by the photographic illustrations of skin diseases, is a good warrant that the publisher of "Cutaneous Syphilis" will not disappoint his readers and subscribers.

Consumption and Tuberculosis. Notes on their treatment by the Hypophosphites. By J. A. McArthur, M. D., (Harv.) Fellow of the Massachusetts Medical Society, etc. Second Edition.
Boston: Alfred Mudge & Son, Printers.

This neat little brochure consists essentially of a compilation from books, periodicals, etc., of the expressed opinion of the value, from clinical experience, of the hypophosphites in the treatment of consumption. It is valuable in proportion to the weight to be attached to the opinions of those whose views are copied, and supplies in concise shape much valuable information on this subject.

The Surgery, Surgical Pathology and Surgical Anatomy of the Female Pelvic Organs. In a series of plates taken from nature with commentaries, notes and cases. By Henry Savage, M. D., London. Fellow of the Royal College of Surgeons of England. One of the Consulting Medical Officers of the Samaritan Hospital for Women. Third Edition Revised and greatly enlarged. Thirty-two plates and twenty-two wood engravings with special illustrations of the operations on Vesico-vaginal Fistula or Ovariotomy, and Perineal Operations.
New York: Wm. Wood & Co., 27 Great Jones street. 1880. Detroit: E. B. Smith & Co.

This work is Vol. VI. of Wood's Library of Standard Authors for 1880. The plates are an exact fac simile, without color, of the magnificent series of plates of Savage's female pelvic organs. The original work sold at from $14 to $17 per copy. The purchaser of Wood's Library for 1880 obtains the same work (without colors) and eleven other volumes for the sum of $15. The work consists of plates, each one having a descriptive text. That the English work has reached the third edition is sufficient evidence of the correctness of the author's labors, and is the best endorsement of its value. Every obstetrician and gynæcologist should purchase the series of 1880 in order to obtain Savage's plates.

The Students' Manual of Venereal Diseases, being the University Lectures delivered at Charity Hospital, B. I., during the winter session of 1879-80. By F. R. Sturgis, M. D., Clinical Lectures on Venereal Diseases in the Medical Department University of the City of New York. One of the Visiting Surgeons to Charity Hospital, B. I., Department of Venereal and Skin; one of the Visiting Surgeons to the New York Dispensary Department of Venereal and Skin; Member of the New York Dermatological Society; etc., etc.
New York: G. P. Putnam's Sons, 182 Fifth Ave. 1880. Detroit E. B. Smith & Co. Price, $1.50.

This is a concise little volume of 196 pages and consists of twelve lectures. The author informs his readers that it is written for students of medicine, and as far as possible eschewing all mooted points in venereal medicine. Confining himself to giving a careful, and at the same time a condensed description of the commoner forms of venereal diseases which will fall to the lot of the average young practitioner to treat, together with the appropriate remedies. Venereal diseases are divided into three groups, viz.: gonorrhœa, chancroids and syphilis. The diagnosis between the two latter the author makes very plain, indeed, in his opinion there can be no mistake. As it is written for students we cordially recommend it.

Seventh Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending September 30, 1879. By authority. Lansing, Mich.

This is a volume of 584 pages, and presents a credible appearance for a State document. A portion is taken up in giving the routine business of the Board. The principle papers are on the following subjects, viz.: Annual Address by the president, Prof. R. C. Kedzie, giving an historical review of the legislation relative to the inspection of illuminating oils in Michigan. Privies and Water-closets at Railway Stations, by Homer O. Hitchcock, M. D. Report on the Sanitary Council of the Mississippi Valley, National Board of Health and American Medical Association Meeting held at Atlanta in May, 1879, by Prof. R. C. Kedzie. Regulation of the Practice of Medicine, by Hon. Leroy Parker. Heating and Ventilating Private Dwellings and Public Buildings already constructed, by Rev. D. C. Jacokes, D. D. Slaughter-houses, rendering establishments, etc., by H. O. Hitchcock, M. D. Sanitary Associations, by J. H. Kellogg, M. D. Waste of Human Life, by Prof. R. C. Kedzie. Epidemic, Endemic, and Contagious Diseases, Diphtheria, etc., report by H. O. Hitchcock, M. D. Duties and Compensations of a Health Officer. Opinions of the Hon. Leroy Parker, Attorney General of the State, etc. Diseases in Michigan in 1878. Replies by correspondents and summary of the Secretary. Reclaiming of Drowned Lands, by Henry F. Lyster, M. D. Water Supply of Localities in Michigan, circular replies by correspondents. Powers and Duties of Local Boards of Health, by Hon. Leroy Parker. Glanders in Man and Domestic Animals by Henry B. Baker, M. D. Meteorological Conditions in Michigan, by Henry B. Baker, M. D. Regulations for Examination in Sanitary Science by the State Board of Health, to which are appended the subjects upon which the candidates will be examined. (Some of these questions are like the unknown questions in algebra, rather difficult to find out, and are not yet satisfactorily answered by the best investigators, let alone a neophyte. They would puzzle a Philadelphia lawyer to answer them. They should be very much modified and thus made somewhat understandable before the examinations take place.) Many of the reports are illustrated and diagrams given of the rise and fall of the different diseases in Michigan. A full index closes the volumn.

The Microscopists Manual for 1879. Number one. Containing useful tables, rules, formulas and memoranda. List of Microscopical Societies with officers, etc. Directory of the prominent microscope makers, dealers and importers in America and Europe. The whole forming an indispensable handbook for all those having occasion to use the microscope. Price, 25 cents. Industrial Publication Company, New York City. 1880.

Lucy Rodey. A Novel. By Henry Gréville, translated by Mary Neal Sherwood.
Philadelphia: T. B. Peterson & Bros. Price, 50 cents.

We don't know why doctors should not read novels sometimes; to be sure they are not professional literature, but yet they have curative qualities, especially when tired reading a long review—Ziemssen's Cyclopedia or Holmes' System of Surgery. Lucy Rodey represents what kind of a wife in many districts a doctor should marry, particularly when they would also have such a model mother-in-law. It is worth the reading.

Fracture of the Patella. A Study of One Hundred and Thirty-seven Cases. By Frank H. Hamilton, A. M., M. D., LL. D., Visiting Surgeon to Bellevue Hospital, etc. Author of "A Practical Treatise on Fractures and Dislocations," "A Treatise on Military Surgery," "A Treatise on the Principles and Practices of Surgery," etc., etc.
New York: Charles L. Birmingham & Co., Medical Publishers.

This is an octavo of 106 pages devoted entirely to fractures of the patella. Of the 127 cases, fifty-four cases were treated under the eye of the author, the remainder were treated in Bellevue Hospital by competent surgeons. The author gives his plan of treatment which, although differing somewhat from the mode adopted by ourselves, yet is even more simple, and, without doubt, better. The results are, however, about the same. The great fact proved in the cases reported is that bony union rarely, if ever, takes place, and that the union is ligamentous. In transverse fracture if the ligament is less than half an inch the result must be considered good. In vertical comminuted fracture the possibilities of bony union are greater. The papers of which the book is composed have already appeared in the Hospital Gazette, and now appear in this form for the benefit of the general surgeon, to whom we cordially recommend it. It is a valuable addition to our medical jurisprudence.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. Eighty-second Annual Session held at Baltimore, Md., 1880.

The proceedings show that the profession in Maryland are alive, and the reports and papers are highly creditable to the State.

Fourth Annual Report of the State Board of Health of the State of Wisconsin. 1879. From J. I. Reeve, Secretary, Appleton Wis.

This report shows that the State Board is doing good work, and contains articles on "Homes for the People," "Our Public Schools," "Our School Houses," "Ground Air," "Adulteration of Food," "Inspection of Public Buildings," "Report on Typhoid Fever," and extracts from special correspondence.

Student's Aid Series. Uniform in size and price. Paper, 25 cents, Cloth, 50 cents.
Published in New York by G. P. Putnam's Sons, 182 Fifth Ave. Detroit: Arnold & Willyoung.

This series consist of "Aids to Anatomy," "Aids to Botany," "Aids to Cemistry." Part I. Inorganic non-metallic elements. Part II. The metals. Part III. Organic. Aids to forensic

medicine and toxicology, aids to therapeutics and materia medica, aids to physiology, aids to surgery. These aids are intended to assist students to put together the knowlege they have acquired in attending the course of lectures or the reading of a text-book. They are written by gentlemen well qualified, and must prove of material aid to the memory. Each series has a full index, which is invaluable in any book.

"Notes of Hospital Practice," by Dr. S. M. Miller, of Philadelphia, are now supplied with an index, which was the only thing which lacked to render them complete in every particular.

Pamphlets Received.

Michigan Military Academy for 1879-80. Orchard Lake, Michigan.

Transactions of the Medical Society of the State of Tennesee and its Forty-seventh Annual Meeting, 1880.

The American Medical College Association. Fourth Annual Meeting held at New York City, May 31st and June 1st, 1880.

The Therapeutic Value of the Iodide of Ethyl. By Robert M. Lawrence, M. D., Boston. From the New York Medical Record, June 19, 1880.

Proceedings of the Michigan Press Association at the Second Annual Meeting after its Re-organization. Gaze te Book and Job Print Bellevue, Mich.

Ethylization, the Anæsthetic use of the Bromide of Ethyl. By R. J. Levis, M. D., Surgeon to the Pennsylvania Hospital and to the Jefferson College Hospital. From the Medical Record.

Regulations for Examinations in Sanitary Science. By the Mich gan State Board of Health. Reprinted from the Seventh Annual Report of the Michigan State Board of Health for the year 1879.

Investigation of the Albany Medical College. Report of the Special Committee of the Common Council of the City of Albany on the affairs of the Albany Medical College and the removal of Dr. John Swinburne.

On Division of the Sphincter Ani Muscle as a Therapeutic Measure. By Charles B. Kelsey, M. D., Surgeon to the East Side Infirmary for Diseases of the Rectum, New York. Reprint from the New York Medical Journal, June, 1880.

A Contribution to the Pathology of the Cicatrices of Pregnancy. By Samuel C. Busey, M. D., Professor of the Theory and Practice of Medicine, Medical Department University of Georgetown. Physician to the Children's Hospital, District of Columbia. Reprint fr m Vol. IV. Gynæcological Transactions. 1880.

Penal and Prison Discipline. A paper read on Wednesday evening June 30, 1880, before the National Conference of Charities and Corrections at Cleveland. By Henry W. Lord, Chairman of the Committee on Penal and Prison Discipline and Secretary of the Michigan State Board of Charities and Corrections. Detroit, 1880.

Sympathetic Affections of the Eye. By C. J. Lundy, M. D., Professor of Clinical Diseases of the Eye and of Diseases of the Ear and Throat in the Michigan College of Medicine, and Ophthalmic and Aural Surgeon in charge of the Michigan Free Eye and Ear Infirmary Detroit. Reprinted from Leonard's Illustrated Medical Journal, July, 1880.

Diabetic Cataract, Iritis, Etc. A Clinical Lecture delivered at Michigan College of Medicine by C. J. Lundy, M. D., Professor of Clinical Diseases of the Eye and Diseases of the Ear and Throat. Reported by A. Thuener, M. D., Assistant Surgeon to the Michigan Free Eye and Ear Infirmary. Reprinted from the Michigan Medical News June 10, 1880.

Announcements.

Sixtieth Annual Catalogue and Announcement of the Medical College of Ohio. Session of 1880-81, Cincinnati, Ohio.

Announcement of the Twentieth Annual Course of Instruction at the Bellevue Hosp.tal Medical College, New York City. Session of 1880-81.

Forty-fourth Annual Announcement of the Medical Department and the Thirty-fifth of the Law Department of the University of Louisville. Session of 1880-81.

Annual Announcement of the Medical Department of the University of Buffalo for the Session of 1880-81, with Catalogue of previous sessions. Buffalo, N. Y.

Announcement of the Medical Department of the University of Pennsylvania for the 115th Annual Session, 1880-81, and List of Graduates at the Commencement March 15, 1880.

Department of Pharmacy of Vanderbilt University. Announcement of Lectures for Fall and Winter Sessions of 1880-81. Lectures are given in the main building on the University grounds.

Medical Department of the University of Georgetown, District of Columbia. Thirty-second Medical Session 1880-81. Medical College Building corner of Tenth and E streets, Washington, D. C.

The Detroit Medical College, Detroit, Michigan. Thirteenth Annual Announcement and Catalogue 1880-81. The regular term will open Wednesday, September 8th, 1880, and close March 8th, 1881.

Therapeutic Progress.

THE USE OF IODOFORM IN ULCERS.—I have just dismissed from under my care, cured, a case of varicose ulcer that had defied the patent ointments that are so much advertised, and had also been under the care of several medical men. Iodoform dusted over the sore twice a week, and a daily dressing of boracic acid ointment, soon made a change in its appearance; and in about fourteen days it healed, and the patient describes the limb as being quite free from pain—a thing quite new to her. A year ago I had an old soldier under my care with an ulcer of the size of half-a-crown, upon the outer aspect of the right leg, four or five inches above the ankle-joint. It first formed in the Crimea, during the first bombardment of Sebastopol, and followed a blow from a splinter. For some years, he took, little notice of it, merely keeping it clean. Latterly, he had dressed it with all the patent ointments he saw advertised. It was an ugly, unhealthy-looking ulcer, discharging freely, and was very painful both during the night and when walking. Its depth varied; in the centre, it was quite an inch and a half. Its edges were irregular. The leg was free from varicose veins, and the man was temperate. His occupation entailed much climbing, and he had the ulcer often struck by pieces of timber. I first dusted it with iodoform daily; in a week, every other day; and then twice a week. The effect was marvellous; for in six weeks the ulcer healed, and to this day continues well; the cicatrix is firm; and the man can follow his occupation and take long walks without any pain or inconvenience. I am certain that no other treatment would have healed this ulcer. I have found boracic acid ointment alone to do wonders with ulcers; but, with the addition of iodoform sprinkled on the sore, much more can be done.—*W. Easby, M. D., in British Medical Journal.*

THERAPEUTICS OF HOT WATER.—Medicine and surgery seem to be in hot water at present, literally speaking. We now find hot water recommended to reduce temperature in fevers, to cure consumption, arrest hemorrhage, stop irritative cough, as an application to wounds, healthy or inflamed, to chancres, erysipelas, and in all these, as it seems to us, not without a reason. As an

application to any inflamed part, where there is induration from effusion of inflammatory products, we have invariably found hot water dressing better than cold water. It always relieves the pain, and frequently resolves the inflammation with suppuration. In erysipelas it has lately been highly recommended by Professor Frank Hamilton, of New York. We have used it several years in erysipelas, and have always found it to relieve the stinging, burning pain immediately, and the disease subsided as quickly, perhaps more quickly, than when iodine or nitrate silver is used as an external application. In recent wounds, without inflammation of surrounding tissues, we think that warm water dressing or poulticing delays healing, but in this state it has proved with us far better than cold water dressing. We saw a case this week of eczema rubrum of the leg, developed after a slight injury, in an old man. He was advised by a surgeon to apply cold water, which he did; it gave him great agony when applied, and the disease extended under its use. We substituted warm dressing, with entire relief, and rapid progress to a cure. Professor Hamilton, where a limb is affected, keeps it continually in a warm bath, to which he adds carbolic acid, or some antiseptic. He especially recommends the very hot water in phagedenic chancre.—*A. W. P., in Western Lancet.*

Hysterical Toothache.—Miss J., a young lady æt. 19, came complaining of toothache in the second lower molar on the right side. On examination, it was found to be very much decayed; and, as it was very sensitive to pressure, showing some inflammation of the periodontal membrane, and as there was not room for the dens sapientiæ, it was extracted under nitrous oxide gas; and the patient was told to come again to have some teeth filled that were decayed. When she came, pain was complained of in the first molar next to the one extracted. This was excavated ready for filling, and some carbolic dressing put into the cavity. The pain continued, and the tooth was sensitive in the same way as the other; she could not eat on it, and the slightest touch of an instrument even on the healthy surface of the tooth was felt. The pain was constant day and night, and of a dull heavy character. The patient wished very much that the tooth might be removed. The gums were ordered to be painted with a solution of tincture of iodine and tincture of aconite. A calomel and opium pill was given at night, and a general tonic was prescribed. The pain, however, continued; nothing gave relief. At this time, my suspicion was aroused; and, pretending to tap with an instrument a tooth in the upper jaw, I really did so to the bottom one, but no pain was felt in either tooth. This I repeated several times, always with the same result. I felt convinced that the pain was entirely hysterical; and, on inquiry, found from her relations that she was a very hysterical subject, and had been under treatment for hysteria about a year ago. Miss J. is a full-grown well developed woman, and of a peculiar lethargic unenergetic disposition, and rather anæmic, but, on the whole, enjoying good health. She is regular in all her habits, and the catamenial periods are regular. This in the second case of the kind that has occurred in my practice; the other is much like this.—*Morton Smale, M. R. C. S., L. D. S. Eng., in British Medical Journal.*

New Remedies.

Chian Turpentine in Cancer.—I beg to thank you for placing the columns of The Lancet at my disposal for the purpose of giving information of my tests for the purity of Chian turpentine, and I may be permitted to strongly support your dictum, that this is a point "which should be settled at the very threshhold of the research."

As regards the sources of the drug which has been employed throughout my investigations in the treatment of cancer of the female generative organs, I may state we had a small supply in the Hospital Dispensary which I supplemented from a chemist in Birmingham. The two specimens were identical as regards their appearance, taste, and smell. We thus had a sufficient supply to carry us through the cases reported in The Lancet for March 27th, 1880, as well as some for the treatment of private cases. Knowing the difficulty of procuring the Chian turpentine genuine, I relied in the first instance upon the characters given in Watts' Chemistry, Vol. v., page 920, as tests of its purity. The drug I used was many years old, and agreed with the following description given by Watts: "yellowish-green, has an odor of fennel and elemi, and an aromatic taste like that of mastic. It dissolves completely in ether, and partially in alcohol, leaving a glutinous residue." Subsequently I procured Flückiger's and Hanburys' Pharmacographia, from which I give their excellent description of the drug: "Chian turpentine as found in commerce and believed to be genuine, is a soft solid, becoming brittle by exposure to the air; viewed in mass it appears opaque, and of a dull brown hue. If pressed while warm between two slips of glass it is seen to be transparent, of a yellowish-brown, and much contaminated by various impurities in a state of fine division. It has an agreeable, mild terebinthinous odor and very little taste. The whitish powder with which old Chian turpentine becomes covered shows no trace of crystalline structure when examined under the microscope."

The specimens I used corresponded in every particular with these two descriptions, but it may be useful to describe more in detail some of the properties above mentioned.*

The pure drug is of such a solid nature that a portion taken between the fingers may be rolled into the form of a pill without adhering to the fingers; thus it is very different from the large number of spurious specimens which have been

[* A sou ce of confusion in connection with the descriptions of the genuine Chian turpentine here given, lies in the fact that it has been taken from the old drug, which has been for years on the market, and which has become hardened and brittle from age and exposure. If these qualities are essential, it is evident that the usefulness of Chian turpe ntine has been very much curtailed, as the old stock on hand having these properties, is now nearly exhausted, and it will require years for the new crop to acquire the desired physical characteristics. At present the worth or uselessness of Chian turpentine must necessarily be determined by the activity of the newer stock.—Ed. Therap. Gaz.]

supplied to the public, and which for the most part have been of a syrupy consistence. The odor of the genuine drug is peculiar. If a portion be softened between the fingers the fragrant odor can be readily preceived, and it is not by any means similar to that of turpentine oil, whilst the spurious kinds smell strongly of the latter substance. The taste of the pure article is characteristic in not being unpleasant. Indeed, it is almost tasteless; I have kept a piece in my mouth for two hours and scarcely knew that it was there. The taste of most of the spurious kinds is very bitter, and so unpleasant that I now rarely adopt the above-mentioned mode of testing the drug. The brittle yet elastic nature of the pure drug is very striking. If a piece is warmed and rolled out, and is allowed to cool, and is then dropped on the floor, it generally breaks into a number of fragments. If a mass is placed in a shallow vessel it usually flattens and spreads over the vessel, the surface being smooth. When the pure drug is placed between two pieces of warmed glass its appearance corresponds exactly with that that given in the Pharmacographia. It is best to take a piece of glass, warm it very slightly with a piece of lighted paper, clean it, and then place the drug to be examined upon it; then cover the drug with another piece of glass, and allow both to cool; then by holding the double glass up to the light the characters are readily distinguished. If the drug is spurious, consisting perhaps of strained crude turpentine or Venice turpentine, and so placed between warm glass, it will present the appearance almost of water. If Chian turpentine is adulterated with Canada balsam, on a gentle heat being applied to the glass on which it is applied, the Chian turpentine remains in the centre and the balsam flows over the glass, the reason being that the former requires a little stronger heat to liquefy it. If black resin is mixed with Venice turpentine, to make the specimens resemble the impurities of the real article, the compound is of a syrupy consistence only, and on heating the mass sufficiently between two glasses the resin is melted, so that the apparent impurities which it presented disappear, while these remain permanent in the genuine drug. Canada balsam when heated becomes transparent, and perhaps more so if the heating is repeated, and the smell is of a well-marked sickly odor. If the spurious kind consists largely of resin and a piece is put on a spatula and a lighted taper applied to it, the characteristic resinous odor is at once obtained.

The taste, odor, and appearance, then, are the chief characteristics of the drug. If it has a bitter taste it is not pure; if it has not much taste, as a mixture of resin and Canada balsam, on burning the mass the peculiar odor will reveal its impurity. If the mass does not dissolve in alcohol, but leaves a glutinous residue, then, all other things being equal, it is pure. If it is of a greyish-white, or black color even, mixed with impurities, and of a syrupy consistence, it will have a strong smell of turpentine, and is not pure. I enclose you some specimens of the pure and of the impure drug for your inspection.

May I be allowed to say a few words in reply to Mr. Green's letter in your last impression? My original paper was merely a report of some trials I had been making with Chian turpentine in the treatment of certain forms of cancer. A general definition of cancer was given at the commencement of the paper, and as three of the patients suffered from extremely advanced cancer, I deemed it unnecessary, having given this definition, to minutely describe what was self-evident. As regards the inconsistencies of which Mr. Green speaks, I think they arise from his want of due consideration of my remarks as applying to recorded facts only, without any attempt at explaining them. Nowhere in the paper did I allege the cases to be cured, for I distinctly stated that there had not been sufficient time to decide whether the disease would or would not recur. From Mr. Green's point of view it is not likely to recur, as he infers that the cases were only "alleged" cases of cancer. With equal propriety I might ask Mr. Green for a definition of granular diseases and hyperplasia of the cervix. This is unnecessary, as I hope I am able to distinguish the two diseases. As Mr. Green seems to impugn my veracity, I may state that I only published cases occurring in hospital practice, and which were open to the obsevation of competent medical men. I may add that the fourth reported case was seen by Dr. Heslop, the senior physician to the Queen's Hospital, who has had a large gynæcological experience, and who is an able pathologist, and he unhesitatingly declared the case to be one of cancer of the uterus.—*John Clay. in London*, (*Eng.*,) *Lancet.*

Chian Turpentine in Cancer.—As I have a patient with scirrhous cancer of the uterus who has taken almost without intermission every four hours the pill of chian turpentine *à la* Professor Clay, will you allow me to state the result of the remedy in my hands.

The patient commenced to take the pills on March 29th last, when there were all the usual local signs of advanced cancer, minus a fetid discharge per vaginam. A strong hard mass extending over the whole uterine structure, but more especially infiltrating the posterior wall, and projecting thence almost through the os. Paroxysms of pain coming on so severe that large doses of morphia were necessary to relieve them. The appetite not only gone, but the stomach refused to take almost any food. The cancerous cachexia very evident, and the patient's spirits very much depressed, and floodings much and often. Now, on examination per vaginam there is still a considerable tumor to be felt, but it is comparatively very soft and yielding to the touch, and not by any means so extensive; there is little or no hæmorrhage; pain by no means so severe as formerly, and almost entirely confined to the thigh and leg of the left side. The appetite is excellent, and the cancerous color of the skin and complexion almost gone. The patient expresses herself as feeling very much better in every way, and is in the habit of attending to household duties and taking out-door exercise as when in her wonted state of health.

The disease in this case was first discovered on Nov. 26th last, when the tumor was situated on the posterior wall of the uterus, and only then of about the size of a walnut. There has hitherto

been no disturbance of the functions of rectum or bladder, except a tendency to constipation. The disease made rapid progress until the turpentine pills were taken, and since the first day of her taking them, March 29th, so far from progressing the mischief appears to have stopped.

I may add that the glands of the neck are enlarged, and have been during the last four or five months. When painful, extract of belladonna locally applied has always relieved the pain.—*J. E. Kenyon, L. R. C P. Lond., M. R. C. S. Eng., in Lancet.*

The Chian Turpentine Cure for Cancer.—Mr. John Clay reports that he continues to get very satisfactory results from the Chian turpentine. The drug is being tried in some of the London hospitals. The trouble seems to be that no one but Mr. Clay is able to get hold of the right kind of Chian turpentine.—*Med. Record.*

Quebracho Bark.—The therapeutic investigations made by Dr. Penzoldt, of Erlangen, with this new remedy, have led to the following results:

1. Quebracho bark appears in many cases to be a useful palliative for dyspnœa in pulmonary emphysema and chronic bronchitis; in other cases, however, the remedy is without any effect, especially in aged individuals. Its value as a remedy in dyspnœa dependent upon defective cardiac valves is at least doubtful.

2. If used for any length of time, the drug produces disagreeable effects which make its continuance difficult.

3. The frequency of respirations is diminished by the drug the more decidedly, the greater their excess has been over the normal condition.—*Pharm. Zeit.*

Mr. O. Primke lately sent a communication to the Pharm. Zeit., in which he draws attention to possible mistakes which may arise from a misinterpretation of the name quebracho. The latter is a Spanish word and means "iron wood." There are four different trees which yield, in commerce, quebracho-wood and bark; hence a confusion might easily arise. These four kinds are the following:

1. Aspidosperma quebracho Schlechtendahl. Nat. fam. apocynaceæ. Native name: quebracho blanco. This tree grows in the province Catamarca in the Argentine Republic. The bark is used by the natives in malaria and asthma. This is the quebracho which constitutes the remedy lately introduced in Europe, and also in this country.

2. Loxopterygium (or quebratschia) lorentzii Grisebach. Nat. fam. terebinthinaceæ. Native name: quebracho Colorado. The tree grows principally in the province Corrientes in the Argentine Republic. Both the wood and bark are highly valued in commerce as a tanning agent.

3. Jodina rhombifolia Hooker et Arnot. Nat. fam. ilicineæ. Native name: quebracho flojo. The wood and bark are generally confounded, in trade, with the preceding, and are used for the same purposes.

4. Machærium fertile Grisebach. Nat. fam. leguminosæ; Dalbergieæ. (Syn. Tipoana speciosa). Native name: tipa. This tree likewise furnishes wood and bark for tanning purposes, both of which, however, are of less value than those mentioned before.

Mr. Primke received this information from Mr. Hieronymus, professor at the University of Cordoba, who also furnished him with specimens of the wood and bark of the aspidosperma quebracho, which corresponds in every respect with the pharmacognostic description of the bark given by Dr. Dingler, Custos at the Botanical Garden of Munich.—

Dr. Burgos* recommends several preparations of quebracho, which may, of course, be administered in substance. The infusion or the decoction, usually of the strength of one in twenty, is improved by making it with the aid of a little sulphuric or acetic acid, whereby more of the alkaloid is extracted, and the resulting preparation is rendered much clearer. Tincture of quebracho is prepared by macerating one part of the bark in 5 parts of 56 per cent. alcohol for 8 days, and filtering.

Compound Tincture of Quebracho: Quebracho bark, 2 parts; orange peel, 1 part; alcohol (56 per cent.), 5 parts.

Wine of quebracho: Quebracho bark, 1 part; alcohol (56 per cent.), 2 parts; white wine, 16 parts. Leave the alcohol in contact with the bark for 24 hours, then add the wine, macerate for 8 days and filter. The author specially recommends San Juan or Mendoza wine, because either of them contains but little tannin, and possesses a special aroma which communicates an agreeable flavor to the preparation.

Elixir of quebracho: Wine of quebracho mixed with a sufficient amount of sugar.

Extract of quebracho: Both an aqueous and an alcoholic extract may be prepared.

Syrup of quebracho: Quebracho bark, 3 parts; water, 32 parts, sugar 16 parts. Boil the bark with the water, filter, and evaporate down to one-fourth; then add the sugar and make the syrup in the usual manner.

Preparations with the alkaloid: Aspidospermine or quebrachine is insoluble in glycerine. It dissolves readily in fats and fixed oils, and may be incorporated with cod-liver oil in larger proportion than quinine. The following is a suitable formula:

Aspidospermine	6 to 8 parts.
Cod liver oil.....	100 "

—*New Remedies.*

Further Observations on Quebracho Bark.—Dr. Penzoldt's discovery (Medical Times and Gazette, vol. ii. 1879, page 35) that various forms of dyspnœa can be alleviated by quebracho bark, receives confirmation from two recent writers in the Berliner Klin. Wochenschrift, No. 52, 1879—Dr. Berthlod, of Dresden, and Dr. Picot, of Carlsrühe. By both, Penzoldt's extract (referred to in our former notice) was rigidly adhered to. Dr. Berthlod relates two cases of spasmodic asthma which were much benefited by the new

* In a paper published in the Revista Farmacéutica and abstracted in Pharm. Jour., Dec. 20th, 1879.

drug. In the first the respirations fell after three doses from 64 to 30, with general improvement of the symptoms; in the second, where the asthma depended on emphysema, the effect was less rapidly produced; but the patient, who had been under Dr. Berthlod's care for four years, and who generally had to lie up for one or two weeks at the time of his attacks, was about again in five days. In a case of mitral incompetence and stenosis, quebracho relieved the severe nocturnal dyspnœa most decidedly; in two advanced cases of fatty degeneration of the heart it also did good, but digitalis had to be given for the relief of œdema, over which the quebracho exerted no influence whatever. Dr. Berthlod, however, from his small experience is inclined to regard the latter drug as indicated in cardiac disease when the pulse becomes irregular under the action of digitalis, and when orthopnœa continues after the digitalis has been omitted. In one or two cases of chronic bronchitis, and in several cases of phthisis in the latter stages, the drug proved unsatisfactory; in two patients with phthisis, however, it relieved the dyspnœa wonderfully. In one of these the respirations fell from 52 to 28 after teaspoonful doses of the extract every two hours. Dr. Picot not only gave quebracho with good results to three patients with catarrhal pneumonia, bronchial asthma, and cardiac disease, dyspnœa being in each an urgent symptom, but he experimented on himself with it as to its effect in diminishing shortness of breath in climbing hills. On three following days, the temperature and height of barometer remaining nearly unaltered, he ascended the same height in the same period of time. On the first day, without quebracho, his respirations rose from 16 to 42, his pulse from 64 to 94. On the second day, half an hour before starting, he took fifteen grammes of Penzoldt's extract, and reached his destination with respirations at 30 and a pulse of 80, feeling also in every way easier, as was further proved by his being able to smoke during the ascent, which he could not at all manage the day before. On the third day, without quebracho, his symptoms corresponded to those of the first day. He has also seen good results in two persons without evident organic disease, but liable to breathlessness in walking fast. We must not omit to mention that, according to the Wiener Med. Blätter (No. 41, 1879), Professor Skoda, of Vienna, has not only found benefit himself from quebracho, but has prescribed it for others with success. It is possible that as an astringent in diarrhœa the resinous residue of the bark, which is only soluble in alcohol, may be of service. Dr. Berthlod noticing that the diarrhœa of a phthisical patient stopped while taking quebracho, has tried the resin in acute and chronic intestinal catarrh with good results. To children he gives 0.1 gramme in a pill of which they take ten daily. English children, however, might object to the number prescribed.—*Medical Times and Gazette.*

MANACA—RHEUMATISM.—A considerable portion of my professional life has been spent in the public service and in regions of country among persons whose prevailing disease was rhematism, acute and chronic. There can be no question that I have been successful in my management of these cases. I have never failed in relieving an acute attack within forty-eight hours, while chronic cases give me no concern, as I invariably cure them instanter. My remarks do not apply to attacks complicated with cardiac affections nor to rheumatic gout. What is termed syphilitic rheumatism is not a type of the disease. It ought to be termed mercurial poisoning. A prominent symptom is an exacerbation of the pain at night. This can be at once dispersed by a few doses of iodide of potassium or ammonium. At sea this constitutes more than one-half of the cases which apply for relief. Latterly my success has depended very materially upon my exhibition of a remedy new in this country, but officinal in the Brazilian Pharmacopœia called "manacá." I purchase the fluid extract, prepared by Parke, Davis & Co., which I find reliable.

In 1863, and for years subsequently while engaged in the United States service and in hospital and dispensary practice, and also in public institutions, both in South Carolina and Louisiana, I exhibited to my patients affected with acute rheumatism brahee sugar powders. As an adjuvant I enveloped the swollen member with poultices of mullein leaves and used a stimulating and anodyne liniment every three hours. Under this treatment I abated the disease in three days.

At the suggestion of some writer, whom I can not now name, I would recommend that the mullein leaves be steeped in warm vinegar.

The swollen joints are frequently so sensitive that great gentleness is requisite in the use of the liniment. Gradually the pressure can be increased until any weight can be borne without inconvenience, and the pain be dissipated.

Should the fever be very high, it is not amiss to order:

℞ Fl. Ex. Aconite, gtts. x.
Water, ʒ iv.

M. Sig. A teaspoonful every hour.

I find that with the above treatment the number of cases with heart complications is very materially reduced. When we have to treat these, remedies must be used to meet the indications of each case.

The great benefit derived from the manacá is the profuse perspiration which it produces and freedom from pain. Very frequently headache is occasioned, but this is transitory, and can be at once cut short by a cup of coffee.

In chronic rheumatism I very often use the manacá alone, and if necessary order a liniment every three or four hours.

In all cases, both acute and chronic, the bowels must be kept open and the liver must not become congested. So soon as it becomes torpid there is an aggravation of the symptoms. Use either podophyllin or the elixir of wahoo, or wahoo and blue flag, but only administer in such doses as will limit the action of the liver. It is impracticable to conjoin stimulation of the liver and irritation of the bowels.—*J. H. Egan, M. D., in Independent Med. Investigator.*

RHUS AROMATICA.—Among new remedies that have been recently introduced, the rhus aromatica is, perhaps, not the least. This drug was brought

to the notice of the profession by Dr. J. T. McClanahan, of Boonville, Mo., who claims to have used it extensively and with excellent success. It is said to be particularly useful in urinary disorders, exerting a restraining influence upon the kidneys and bladder. In diabetes, enuresis etc., it is reported as giving very satisfactory results.

From a few experiments I have made with the drug I am inclined to think that it not only exerts a restraining influence upon the urinary organs, but also upon all the secretions. It likewise influences the circulation as a hemostatic.

I will briefly note a few cases which I have treated with this remedy within the past few months.

Case 1. Mr. P., aged 26 years, of a sanguine temperament, presented a well marked case of purpura hemorrhagica. The eruption was of a bright scarlet color, appearing on various parts of the body but principally on the neck, breast and arms. It was most marked in the morning when it appeared on the skin in blotches or streaks as if scratched by the finger nails. Much of it could be removed by rubbing with a cloth, staining it red. I gave him a treatment consisting of iron, ergot, belladonna, etc., without any apparent benefit. Having some of the rhus on hand for trial, and thinking that its restraining influence might be good in this case, I decided to give it at a venture. I gave him a four ounce preparation of tr. rhus and glycerine, equal parts, and ordered a teaspoonful to be taken every four hours. After the second day there was a decided improvement, and before the one bottle was all taken the eruption had entirely disappeared.

Case 2. Mrs. M. was very much emaciated and debilitated from a protracted illness caused by a complication of diseases, and was troubled with profuse sweating. After using aromatic sulphuric acid and a cold infusion of sage as a drink, without any apparent benefit, I gave her the rhus mixture as above. This gradually lessened the perspiration which after several days became normal.

Case 3. A little son of C. R., was troubled with the common complaint of childhood of wetting the bed. Had been troubled for several months and all the time growing worse. I prescribed the rhus, one ounce of the tincture to two ounces of glycerine and one ounce of water. He got better at once, and was well before he had all the medicine taken.

Case 4. Another case of enuresis similar to the last, only of longer standing. I gave the rhus mixture as in the previous case which materially benefited the patient, but the father neglecting to renew the medicine the case was not cured. He is, however, under treatment again with the prospect of being cured.

The rhus has this additional recommendation to its utility that it is not unpleasant to the taste, thus making it particularly suitable for children who are averse to taking nasty medicine.—*J. A. Munk, M. D., in American Med. Jour.*

Jamaica Dogwood. (Piscidia Erythrina.)—This is a tree about 20 feet in height and bearing a beautiful flower. It is a habitat of Jamaica where it is much used in the taking of fish, upon which it acts as a powerful narcotic. The bark of the root is what is used in medicine, and ought to be gathered in the months of April and May. It deserves full investigation at the hands of the profession as it is unmistakably one of the most valuable of the many new remedies introduced to the notice of the profession by Messrs. Parke, Davis & Co., Detroit, Michigan.

For the purpose of experiment it is better to procure a specimen of the fluid extract from some reliable manufacturer. Those who desire to make a preparation for their own use can do so by macerating with alcohol. Water will not extract the medicinal properties. The dose is from one-half to two fluid drachms.

In toothache it is an absolute specific where a cavity exists. Saturate some loose cotton with the tincture and insert it in the cavity and the pain will at once vanish. I have treated several hundred cases in this manner without a single failure.

I have experimented upon myself and the following are the provings: I commenced with small and repeated doses until I got the full physiological effect. The first sensation is a fullness and warmth through the chest, strong heart beat and full pulse, this is followed by great internal heat which slowly extends to the surface and is followed by perspiration. Should the medicine be still further continued, a violent headache is the result which passes off in a few hours. It has been proposed to substitute it for opium as it leaves no bad effects whilst the latter disagrees with a large number and in all cases deranges digestion. I find that Jamaica Dogwood is both an anodyne and a narcotic, but it is difficult to measure the dose to produce diaphoresis and sleep, when it becomes necessary to stop the administration, otherwise headache will result. I usually prescribe:

℞ Ex. piscidiæ erythrinæ fl. ʒi.
Elixir simplicis, ʒiij.

M. Sig. A teaspoonful every half hour until perspiration ensues.

I have used it with great benefit in angina pectoris, combined with yerba santa, in the cough of phthisis.

In intermittent fever I fine it answers the purpose as well as quinine, abating the paroxysm in a majority of cases.

In sciatica I find it of the greatest benefit. In six cases that I have had under my care I succeeded in effecting a cure by the internal administration of jamaica dogwood and the external application of mullein leaves steeped in warm vinegar. Nerve stretching and the hypodermic injection of morphia and chloroform will now be of the past.

It will be my first treatment in acute rheumatism, and judging from analogy, ought to be successful.

I trust that others will investigate this drug and give us the benefit of their experience.—*J. H. Egan, M. D., in Eclectic Med. Jour.*

Petroleum in Phthisis.—Crude petroleum deservedly ranks next to cod liver oil in the therapeutics of tubercular and scrofulous diseases of the respiratory apparatus.

As yet the knowledge of its properties is largely empirical—the results of clinical observations rather

than of theoretical conclusions, or of hypothetical deductions. It is unquestionably an alterative; an agent which modifies molecular morphology, which impresses those functions by which the non-living is endowed with vital attributes, and by which the integrity of the nutritive fluid is maintained. Improved digestion is one of the earliest indications of its effects. It gives strength to the stomach. Food which had previously nauseated that viscus, is kindly received and promptly digested. The appetite becomes more active; inconveniences, such as gastralgia, acid eructations after eating, and heartburn, are either dissipated or ameliorated. If the patient has been losing weight and strength, the loss its often arrested, and occasionally it is both astonishing and gratifying to witness the transition from decided emaciation to rapid recuperation—the patient losing the haggard, wan and death-like expression, exchanging it for the hue and glow of health.

Cod liver oil is highly injurious in the febrile and inflammatory stages, extending inflammation, and hastening the morbific results, favoring hæmorrhage, and only potent for mischief. Under similar circumstances, the hypophosphites are nearly as objectionable, especially the combinations of those containing iron; while petroleum is a decided antiphlogistic, quieting the excited heart, correcting the deranged condition of the capillaries, thus lessening vascular congestion and removing the fuel of inflammation. This property of petroleum is very decidedly manifest in the benefit in confers upon the catarrhal elements of the various forms of phthisis. Frequently after trying the various anodynes to relieve a harrassing cough, without any apparent advantage, the physician will give up in despair, aud conclude that it is useless to attempt its control. But if he will even then place the patient upon petroleum, he will often find that the cough is rapidly diminished, the expectoration becomes less abundant and more natural; the nights, heretofore spent in agony, bring quiet and refreshing sleep; the pain and soreness in the respiratory apparatus disappear; the lung and bronchial catarrhal symptoms are brought in abeyance, and the general amelioration is well marked.

Valuable as it is as an alterative, tonic, antiseptic and expectorant, its disagreeable odor and taste are formidable obstacles to its administration. The majority of patients will accept cod liver oil as less nauseous, and many will refuse to take the petroleum unless so combined as to mask its presence. This difficulty led the author to employ various devices to obviate it. He formed an emulsion with acacia, the yolk of eggs, and sherry wine, flavored with the oil of bitter almonds, and succeeded so that the petroleum was scarcely discernible by taste or smell. It is so proportioned that each tablespoonful will contain one drachm of the petroleum. This amount should be taken four times a day, after meals and at bed time. The difficulty, however, in obtaining this emulsion properly prepared, induced him to prescribe it with Lœflund's extract of malt, flavored with oil of sassafras. The majority of patients take petroleum in this manner without much remonstrance.—*Virginia Medical Monthly.*

Duboisia Myoporoides.—Professor C. J. Lundy, M. D., of Detroit, read a paper on "duboisia myoporoides," a "new therapeutic agent in diseases of the eye." Preparations of the extract and of the sulphate of duboisia where exhibited to the association. His experiments show that it dilates the pupil rapidly and completely, and thoroughly paralyses the muscle of accomodation. Its action is more prompt than that of atropia. When a solution of the sulphate containing two grains to the ounce was employed, the pupil began to dilate in four minutes in some cases, and dilatation was ad maximum in fifteen to eighteen minutes. With weaker solutions dilatation of the pupil did not begin for fifteen or twenty minutes, or longer. Paralysis of the ciliary muscle was easily produced by a two-grain solution of the sulphate of duboisia. Weak solutions produced slight paresis of the ciliary muscle.

The pupil remained dilated from forty-eight hours to six or seven days, according to the strength of the solution employed.

Paretic conditions of the ciliary muscle disappeared in twenty-four hours, but when paralysis was complete, the muscle did not regain its contractile power for four or six days.

Weak solutions which dilated the pupil very widely scarcely affected the accomodation. When four to six drops of a two-grain solution of the sulphate of duboisia were instilled into each eye, in the course of an hour the following conditions were observed: Rapid and complete dilatation of the pupil, paralysis of accommodation, more or less retinal hyperæmia, dizziness, a staggering gait on attempting to walk, a certain degree of intoxication, confusion of ideas, drowsiness, flushing of the head and face, dryness of the skin, diminished salivary secretion, and in a few instances marked dryness of the mouth and throat, slight elevation of temperature, and increase of the pulse-rate. Had used duboisia in central perforating ulcer of the cornea, in phlyctenular keratitis, in acute iritis, in spasm of accommodation, to paralyze the ciliary muscle, and in cases where atropia produced irritation. It was contraindicated in peripheral perforating ulcer of the cornea, and, from its action on the intra-ocular circulation, it was also contraindicated in glaucoma, in choroidal inflammations, of whatever nature, and in inflammation of the retina. —*From Med. Record's Report of Meeting of the Michigan State Medical Society.*

Alkaloids of Duboisia—Reports of the German Chemical Association.—Principally through the efforts of Baron von Mueller, of Melbourne, we are made acquainted with two varieties of duboisia, order of solanaceæ, which promise to be an addition of great value to the materia medica.

The first, duboisia hopwoodii, the leaves of which are called "pitury" by the natives, was the one from which Gerrard obtained a volatile alkaloid, which Pettit declared identical with nicotin. Von Mueller and Rummel, who also extracted this alkaloid, likewise noticed its resemblance to nicotin, and first named it duboisia, but changed the name to piturin, when the second species of the plant was discovered, which yielded a different alkaloid. They found, besides duboisin in the duboisia hopwoodii a peculiar bitter crystalline acid, which they christened "duboisic acid."

The second species, the duboisia myoporoides, is the one from which the extract is prepared in eastern Australia. It is claimed this extract possesses more energetic properties than belladonna.

From the extract Gerrard likewise obtained an alkaloid, which was both amorphous and crystalline (duboisin). Van-der-berg found the same to be volatile, hence distillable with water. For further information concerning duboisin we are indebted to Ladenburg, who, having obtained the alkaloid, from E. Merk, of Darmstadt, as a brown hygroscopic mass, by metathesis in a watery solution with carbonate of potassa, obtained an oil.

Fractional precipitation with chloride of gold yielded a crystalline salt, having the same appearance, composition, and fusibility (150° C.) of the hyoscyamin gold-salt.

By decomposition of the gold-salt with sulphuretted hydrogen the pure base was obtained, an analysis of which showed its resemblance to hyoscyamin. Qualitative reactions proved the same thing. From a solution of duboisin in hydrochloric acid, picric-acid separated a yellow oil, which quickly stiffened into thin scales. Platinic chloride gave no precipitate. Iodine dissolved in iodide of potassium yielded a crystalline periodide. Tannin caused the fluid to appear turbid, while the hydrargyro-iodide of potassium produced an amorphous precipitate. In short, duboisin proves itself identical with hyoscyamin.—"*J. O. D.*" *in Med. Herald.*

Kava-Kava and its Blennostatic Properties.—In a recent thesis on this subject, Dr. Dupuy states that the kava plant contains a resin, which seems to constitute its essential therapeutic principle. The following are his conclusions concerning its medicinal properties:

1. Kava-kava is a sialagogue.

2. Its action on the stomach is that of a bitter tonic; it improves the appetite without producing either diarrhœa or constipation, and perhaps acts as a prophylactic to catarrhal affections of the upper part of the digestive canal. Its taste is agreeable.

3. It exerts a special stimulating effect on the central nervous system; this stimulation differs essentially from alcoholic intoxication, and is called by Dr. Dupuy, kavaic stimulation.

4. It is not a sudorific.

5. It increases very markedly the excretion of water in the urine, and may be classed among the most efficacious of diuretics.

6. It does not produce priapism, as has been stated, but, on the contrary, it prevents it.

7. It is endowed with remarkable blennostatic properties, which manifest themselves very promptly. A chronic urethral discharge is first rendered more profuse, and is then promptly cured.

8. It is very efficacious in cases of acute urethritis or vaginitis, calming the inflammatory condition, controlling the pain during micturition, and suppressing the muco-purulent discharge from the urethro-vesical mucous membrane.

These results are probably due to the combined diuretic and blennostatic actions of the drug.

The anti-catarrhal action seems to be due to the resin and the diuretic effects to a neutral, crystallizable principal called kavaine, and perhaps also to an alkaloid not yet discovered, whose presence would explain more satisfactorily the phenomena excited in the central nervous system, as well as the alterations in the circulation and secretions of the uro-genital apparatus. It possesses over other blennostatic agents, according to Dr. Dupuy, marked advantages, inasmuch as it produces neither diarrhœa nor constipation, is taken with pleasure, increases the appetite, relieves or controls entirely the pain during micturition, changes completely the nature of the discharge, and produces a cure in a very short space of time—ten days.—*La Tribune Medicale.*

Rhus Aromatica.—Within the past two years numberless new remedies have been introduced to the profession. Many of them worthless, others falling lamentably short of the merits ascribed to them, while a few promise to be valuable additions to our therapeutic agents. In this latter class rhus aromatica may be properly included. If the representations made by those who have tried it are true, it will in all probability, find a permanent place in the list of remedial agents. My experience in its use is limited to few cases, and in most of them its results have been satisfactory. A few months since I was called to see a child with incontinence of urine. Every night the bed was wet. Many of the ordinary remedies were tried without effect. Having seen accounts of the virtues of the rhus aromatica in those cases, I gave it a trial, and my success equaled my expectations. I have given it in similar cases since that time with equally favorable results. In one or two cases of that form of enuresis so frequent in old age, I have used it with benefit. In children of weak constitution and of a strumous diathesis, and in those in whom innervation is impaired by weak or defective assimilation, it is in my judgement one of our best remedies. It has been highly recommended in menorrhagia, hemorrhage from the bladder and kidneys, and in other affections of the genito-urinary organs. I have not had occasion to use it in any of these cases but when an opportunity offers will do so. I have no doubt it is applicable in all cases of atony in the genito-urinary organs, when a tonic of astringent in indicated. How a more extensive and thorough trial of the remedy may determine its merits, no one can say; but so far as the experience of those who have tried it goes, it bids fair to become one of our most valuable remedies. The fluid extract in doses varying from five drops to half a drachm, is the best and most convenient form in which to administer it.—*R. B. in Peoria Med. Monthly.*

Ethyl Bromide.—I have used this new anæsthetic in over thirty cases, and am very much pleased with the results. It acts with great rapidity, requiring only about one-half the time to produce insensibility that is required by chloroform. Its exhibition is not accompanied with or followed by sickness at the stomach, as in cases of ether and chloroform. I have several times given bromide of ethyl immediately after a full meal without the slightest disturbance of the digestion.

The cases have varied from the simple extraction of a single tooth to a case of perineal section

which occupied sixty minutes; and in point of age of patient, they have varied from six to eighty years. Three of the cases had previously proved very refractory under ether and chloroform, owing to severe disturbance of the heart's action, so that we were obliged to discontinue the anæsthetic, and proceed without it. Subsequently we used the bromide of ethyl with complete success in these very cases. The pulse and breathing were remarkably good in every case.

One pleasant feature of the new anæsthetic is its faint odor. One can hardly detect its presence in the room while it is being used, and in from three to five minutes every trace will have vanished from the napkin in which it was administered.

The rapid recovery of the patient after its use is a constant marvel. I have observed the well-recognized necessary precautions required in the use of all anæsthetics, viz: loose clothing, prone position as far as practicable, and a competent physician to watch the pulse in all cases. Having used nitrous oxide, ether and chloroform almost daily for fourteen years, I am pleased to find an agent sure, agreeable, and to all present appearance safe.—*H. H. Fitch, D. D. S. in Peoria Med. Monthly.*

Therapeutic Use of Pilocarpin in Skin Diseases.—Professor Pick, editor of the Vierteljahrsschrift für Dermatologie und Syphilis, gives, in the first number of his journal for the current year, some account of his experience in the use of pilocarpin in certain diseases of the skin. The drug was given in the dose of 0.01 gramme (1-7 grain) in aqueous solution, morning and evening, an hour after meals, the patient being in bed or, in summer-time, walking about. Increased salivary secretion was first observed, and a few minutes later increased perspiration. In a few cases one or the other was absent. After three or four weeks the medicine seemed to lose its effect, so that a larger dose had to be given. No evil effect was noted, and in some cases the patient's general health seemed to be improved by the medicine. In psoriasis no effect whatever seemed to be induced upon the course of the disease. In acute eczema pilocarpin aggravated the disease, while in chronic eczema some advantage seemed to be gained by its use. In pruritus cutaneus, and particularly in one very severe case of pruritus vulvæ, pilocarpin acted favorably. In a single case of chronic and rebellious urticaria, pilocarpin, given in one-tenth-grain dose twice daily, resulted in a cure. In the case of a man suffering from well-marked alopecia areata of six months' standing, a two weeks' course of pilocarpin was followed by the appearance of fine, colorless lanugo, and by the end of twelve weeks the hair was restored. Other cases appeared to be equally favorably affected. In ten cases of alopecia "pityrodes" a favorable result was obtained: so that this remedy may be looked upon as a satisfactory one in cases where a strong hereditary tendency to baldness does not exist.—*Phila. Med. Times.*

Bromide of Ethyl as an Anæsthetic.—I administered bromide of ethyl at the Middlesex Hospital a few weeks back, with the following results:

The first patient was a corpulent man, æt. 47, suffering from fistulæ in region of anus, who had often had anæsthetics before. He was inhaling for six minutes before he was fully under its influence, and the operation lasted nearly forty minutes. Fifteen drachms of the anæsthetic were used, and he vomited three times during the operation, the vomiting continuing more or less for two days. The pulse was not quickened. This patient has since been operated upon, when chloroform was used, after which he had no sickness.

The next patient was a boy æt. 17, suffering from disease about hip. He was kept under the influence of the anæsthetic for twenty-two minutes, during which time he inhaled fourteen drachms. He vomited twice during the operation, and was very sick all through the night.

The next patient was a man æt. 34, suffering from fistula in ano. It was seven minutes before he was insensible; he struggled a good deal, and was never completely relaxed. He retched, and then vomited, the vomiting continuing all that night. He inhaled twelve drachms. The mode of administration was on lint, with towel placed over it, except in the last case, when a leather cone was first used; but, the muscles not becoming relaxed, the former mode of administering was resorted to. All the patients quickly recovered consciousness.—*G. Everitt Norton, in British Med. Jour.*

Sabal Serrulata—Saw Palmetto.—The sabal serrulata is indigenous to the southern coast, near Charleston and Savannah, and many places along the coast of Florida. Medical attention was called to it by its superior fat producing properties in animals that feed upon its fruit. It was noticed that as soon as the berries matured, that the animals that feed upon them grew very sleek and fat. A physician (Dr. Read) noticing the very marked health of the animals that feed upon the berries that grew upon the sabal serrulata, concluded to try it as medicine, and the result was that he found the berries to improve the digestion, increase flesh, strength and weight and readily relieve irritation of mucous tissues, especially that of the nose and air passages. He used it in catarrh, ozœna, and chronic bronchitis, with prompt success. One experimenter used it in whooping-cough with prompt success. There are several persons using it in this city, and they say with happy success, in catarrh and ozœna. Several persons used it here last winter in old bronchial coughs, and they say with the best success. I took a dose of it one hour before meal time, and it gave me an appetite for my dinner, which I had not had for some time. I am fully of the opinion that it will prove valuable in coughs, colds and debility generally. Try it.—*I. J. M. Goss, M. D., in Med. Brief.*

A New Remedy for Hydrophobia.—M. Lesserteur has just given publicity to a plant which has a great reputation as a cure for rabies in the kingdom of Annam. This plant, of which the name is hoang-nan, is a kind of liana, closely akin to the false angostura; its effects are similar to those of strychnine and brucine. M. Bouley, in speaking of this new remedy in the Receuil de

Médecine Vétérinaire, regrets that no facts corroborative of its efficaciousness are given, but is of opinion that the property recently shown to belong to rabbits, of easily contracting hydrophobia by inoculation, should be utilized for making experiments thus so easily performed. In reference to this subject, M. Bouley related an anecdote about garlic, a substance which has always had a great reputation amongst remedies against rabies, and is constantly found as a principal integral portion in a large number of formulæ long kept secret. A young man had been bitten by a mad dog, and symptoms of rabies speedily appeared. His family, in a state of the greatest alarm, scarcely knowing what to do with the sufferer, shut him up in a loft where some garlic had been left to dry. In his delirum the poor fellow seized the bundles of garlic, ate greedily of them, and soon became exhausted and fell into a deep *sleep*. When he awoke, he was cured, and the symptoms of rabies had disappeared.—*British Med. Jour.*

Cedron-Seeds as Febrifuge.—The seeds of the fruit of simaba Cedron Planch., belonging to the nat. fam. Simarubaceæ, and native of New Granada, have long been used by the natives, like other bitters, as a remedy in fevers, snake-bites. Dr. Coignard particularly relates that the natives along the west coast of Central America, and on the Atlantic coast also, use the cedron-seeds for intermittent fever, in doses of about 0.50 gm. (8 grs.), administered during the cold stage. Dr. Dujardin-Beaumetz has recently had occasion to confirm these reports. Two cases of obstinate intermittent fever, which turned out to be unamenable to quinine, yielded to cedron-seeds, given in doses of a little less than 0.50 gm. Unfortunately, however, the remedy cannot always be relied on, according to him. One seed may act violently, another may be completely inert. Hence, instead of using the seeds, it would be preferable to extract the active principle. Lewy, in 1851, had discovered a bitter principle in the seeds, which he called cedrine; and Tanret, according to Dr. Dujardin-Beaumetz, has lately discovered another alkaloid of very great activity, the dose of which is a milligram, and which has been named cedronine. Whether these two substances are identical or not remains to be ascertained. [Cedrine has been found to be poisonous in large doses.—*La Ruche Phar.*, Jan., 1880.

California Bay-Tree oil.—(J. M. Stillmann.) The author reports on the properties of an essential oil, prepared by distilling the leaves of the California bay-tree or oreodaphne Californica (=laurus Californica, tetranthera or umbellaria Californica). The tree is large, handsome, and evergreen, being very commonly found in the valleys of the mountain-ranges on the Californian coast. Its wood, the so-called California laurel, is much used in the manufacture of fine furniture. The leaves contain an essential oil, which has a penetrating odor, and, if inhaled too profusely, incites tears. About 35 kilos of the leaves, distilled with steam, yielded 800 grams of the oil. This is a light-yellow, thin-liquid, and limpid, does not thicken on standing, and has an agreeable and aromatic odor, unless it is inhaled too largely. The spec. grav. at 11° C. was 0.94. The oil contains two principal constituents: one, boiling at 167-168° C., being very likely identical with terpinol; the other boiling at 215-216°, being as colorless and mobile as water, and possessing an agreeable odor. If the latter is inhaled too much, it excites a most copious flow of tears, and produces headache. The author names this substance umbellol.—*Ber. d. Deutsch. Chem. Ges.*

Quebracho in Dyspnœa.—Quebracho appears to be, from the reports of Penzoldt and others, a very efficient palliative of all forms of dyspnœa. My experience of its efficacy refers only to a limited number of cases, in which the dyspnœa was associated with emphysema of the lungs, atheroma of the arteries, and degeneration of the cardiac muscles. In all these cases a teaspoonful of the liquid extract has afforded *immediate relief*. In three minutes afer the administration of the drug, the pulse became somewhat fuller, but not increased in frequency; the patients felt their breathing easier; the face was flushed, and a gentle perspiration appeared on the forehead. There were slight drowsiness and inclination to sleep. These symptoms, however, soon subsided, while the breathing continued to be much improved. One patient, suffering from cardiac dropsy, stated that he had passed more urine after taking three doses of the medicine than he had done before. I had, however, no opportunity of verifying this statement.

From what I have seen of the action of the drug, I am confident that it is deserving of a fair trial.—*I. B. Berkart, M. D., in British Medical Journal.*

Concerning Coca.—There can be no question of the potency of coca, and in the hands of the intelligent physician much good may be expected from its use. But do take your trenchant pen and give us a slashing article against the indiscriminate use of it. You know a confirmed chewer of coca is called a coquero. Among the Spanish Americans a coquero is considered hopelessly lost, with no prospect of reformation. Look at the picture drawn by Von Tschudi: "The inveterate coquero is known at first glance. His unsteady gait, his yellow skin, his dim and sunken eyes encircled by a purple ring, his quivering lips, and his general apathy, all bear evidence of the baneful effects of the coca-juice when taken in excess."

Surely this picture is enough to startle any one; but I know that some cannot be startled if there is a prospect of satisfying an appetite; therefore the greater need of a fiery warning in time to the profession, as well as the masses, against the indiscriminate use of a drug which is so apt to be followed by the blasted and desolate life of the coquero.—*D. H. M'Donald, M. D. in Louisville Med. News.*

Action of Various Diuretics.—Dr. Maurel gives the result of his experiments (Bull. Gén. de Thérap., Nos. 5 and 6, 1880) as follows: 1. Nitrate of potassium—uncertain as to the quantity of liquid—augments the solid materials of the urine to a notable degree. The most active doses are a drachm to a drachm and a half. 2. Chlorate of

potassium, less active with respect to the augmentation of solids, increases the fluids of the urine to a greater degree. 3. Acetate of potassium is uncertain, as to the quantity of both solids and fluids. 4. Iodide of potassium, far from being a diuretic, even seems to diminish the quantity of urine. 5. Salicylate of sodium—uncertain as to the quantity of liquids—increases the solid constituents of the urine. 6. Of three vegetable substances experimented upon,—squill, colchicum, and digitalis,—the latter alone is a real diuretic. It augments at the same time the quantity of both solids and fluids. Dr. Maurel gives it as his opinion that no diuretic acts when the system is in a febrile condition: this must be modified before diuresis can occur.—*Phila. Med. Times.*

Whooping-Cough in a Man of Sixty-Six Treated with Drosera Rotundifolia.—William H., æt. 66, the beadle at one of the city churches, attended the hospital in January, 1879, suffering from whooping-cough. He stated that he had had it for about three months. The attacks of coughing ended up with a distinct whoop and a violent struggle for breath. He had usually six or seven bad attacks in the day. They were not accompanied by vomiting, but terminated in the expectoration of a thick sticky phlegm. The cough was most violent, and exhausted him very much, and he was glad to lie down after each paroxysm. There had been no hæmoptysis, no shortness of breath, and no night-sweating. He had lost flesh a little, but this he attributed to his loss of appetite. He was hoarse and could not lead the singing as usual. His chest was carefully examined, but nothing wrong was detected. There was no doubt about the nature of the complaint, and one Sunday morning he whooped in church, to the consternation of the congregation. He had been exposed to whooping-cough, more or less, all his life, and thought he had caught it from some of the school children. This was his second attack for he had had it as a child. He mentioned incidentally that his wife had it when she was sixty.

He was ordered fifteen grains of bromide of potassium in an ounce of water three times a day, and this he took for a fortnight with only slight benefit. He was then ordered a one-in-ten tincture of drosera rotundifolia (the Lancet, August 3, 1878) in five-drop doses, every four hours, in a little water. He took this for a week, and then returned, saying that it made him much worse. It increased the spasm and cough, and made him whoop more; he whooped as many as a dozen times in a single paroxysm of cough. It increased the expectoration too, and he begged that he might be allowed to discontinue the medicine. He was then ordered half-drop doses of the same tincture in half an ounce of water every three hours. At the expiration of a week he reported that there had been a very great improvement; the cough was less, and he rarely had more than one attack in the twenty-four hours. He slept better, and his appetite had improved. He took the medicine for a fortnight longer, when the cough had completely left him. He was quite well, and was able to sing bass and lead the choir once more.

The points of interest in the case are—the age of the patient and the fact of the drosera having succeeded in small doses after having failed in large.—*Lancet.*

Berberis Aquifolium.—The berberis aquifolium, or holly-leaf barberry, is a recent acquisition to our materia medica, and is one of the new remedies really worthy of confidence. It combines two important properties—tonic and alterative—in the most perfect and available proportions. In exerting its tonic properties, the manifestation is almost instantaneous; yet, not like the action of quinine, or any of the preparations of cinchona. It seems to possess the wonderful power of revitalizing the flagging powers of the system in a very marked degree. The vaso-motor system is influenced first; and straightway the vascular system responds to the wonderful influence of the drug. The hepatic and gastric secretions are aroused, and poised at the normal medium, while the whole physical economy falls into line with the happiest and most enduring results. For about a year the writer has been testing it in syphilis, chronic diseases of the liver, stomach and bowels, and a large variety of skin diseases, but especialy in eczema and psoriasis. Its use in syphilis alone should give it great prominence with the profession. It possesses the wonderful power, unaided and alone, of curing syphilis; and it seems to be most available in those old and broken down cases which mercury and iodide of potassium have failed in. Posessing, as it does, the power of exalting all the functions of the recuperative system, and at the same time antidoting the syphilitic virus through the agency of a constituent element, or curative property inherent in its composition, as quinine in Peruvian bark; it naturally follows that we have in this indigenous remedy the great desideratum in Hunterian chancre. The author wishes io impress the fact that his repeated experiments have proved it to be most useful in those cases with the syphilitic eachexia well defined, such as are usually met with in public hospitals, and at watering places. The benefit he has derived from its use in syphilis, eczema and chronic hepatitis warrants his writing in this enthusiastic way.

The Physiological and Therapeutic Properties of the Alkaloids of the Pomegranate.—According to the London Medical Record, June 15th, 1880, M. Dujardin-Beaumetz read a paper on this subject at the meeting of the Paris Académie de Médecine on May 18th, in which he postulated the following conclusions: 1. The alkaloids of the pomegranate possess real and powerful physiological properties. 2. These alkaloids induce paralysis of the motor nerves, while preserving intact muscular contractility. They do not attack sensibility, and seem to strike the motor nerves at once in their muscular terminations. They act like curare. 3. The sulphates of pelletierine and of isopelletierine possess very active tænicide properties, and in doses of three centigrams (½ grain) in a solution containing half a gram of tannin, they induce in the majority of cases (thirty-seven times out of thirty-nine, according to Dujardin-Beaumetz, and nineteen times out of nineteen, according to Laboulbène), the expulsion of the tænia, with the head. 4. New attempts should be made to apply the physiological properties of these salts in the treatment of certain diseases; in the first instance, in

those in which curare has already been indicated, as tetanus and rabies; in ocular affections, in which it is necessary to induce active congestion; in the fundus of the eye; finally, in certain forms of vertigo, especially in that of Menière's disease.

Treatment of Constitutional Syphilis by Sulphate of Copper.—Drs. Martin and Oberlin (Medical Record) gave a brief report upon this subject at a late meeting of the Paris Academy of Medicine. The authors treated fifty patients, who showed various manifestations of syphilis, by the copper sulphate. The results were quite satisfactory, the fifty patients all being cured. A comparison of this method was made with the ordinary mercury methods, and it was found that the copper salt proved more efficacious and required less time for its beneficial action than did the mercury salts. The copper was also well borne by most patients. In only one case it produced initial vomiting, followed, however, by permanent tolerance of the drug. In a case of very grave syphilis, when mercury had proved useless, the administration of copper effected a rapid and complete cure. In a few patients the gums became affected, a greenish tint appearing at their free border. But this cupric gingivitis yielded more rapidly than the analogous mercurial affection ordinarily does. Actual sponginess of the gums was not observed. The salt was exhibited by the mouth in doses of one-sixteenth to one-sixth of a grain per day. An aqueous solution was employed. External application was also made by adding five drachms of the salt to a full bath.—*Gaz. Méd. de Paris.*

The Alkaloid of Quebracho Bark—Fraude.—Aspidosperma quebracho Lor. is an apocynaceous tree quite common in the Province of Sant iago, in Chili (also in Brazil). Its bark has a brownish-yellow color, inclining to reddish. (The wood is very hard, and contains from 15.7 to 18 per cent. of tannin, differing from that of oak-bark and chestnut-wood, besides 2.8 per cent. of an astringent acid, resembling gallic. According to Arnaudon, it also contains a yellow dye-stuff. See Dingler's Pol. J., vol. 231, p. 451.—Ed. N. R.)

The bark has long been used in its native country as a remedy in intermittent fever, and is said to approach cinchona bark in efficacy. The author found in it an alkaloid which he termed aspidospermine, easily soluble in alcohol and ether, little soluble in water. The solutions of the sulphate and hydrochlorate are very bitter, resembling quinine. Analysis proved it to have the composition either of $C_{22}H_{28}N_2O_2$ or $C_{22}H_{30}N_2O_2$, further examinations being necessary to decide between these two formulæ.—*Ber. d. Deutsch. Chem. Ges.—New Remedies.*

Milk and Limewater.—Milk and limewater are frequently prescribed by physicians in cases of dyspepsia and weakness of the stomach, and in some cases are said to prove very beneficial. Many persons who think good bread and milk a great luxury frequently hesitate to eat it for the reason that the milk will not digest readily; sourness of stomach will often follow. But experience proves that limewater and milk are not only food and medicine at an early period of life, but also at a later, when, as in the case of infants, the functions of digestion and assimilation are feeble and easily perverted. A stomach taxed by gluttony, irritated by improper food, inflamed by alcohol, enfeebled by disease, or otherwise unfitted for its duties—as is shown by the various symptoms attendant upon indigestion, dyspepsia, diarrhœa, dysentery, and fever—will resume its work, and do it energetically, on an exclusive diet of bread and milk and limewater. A goblet of cow's milk may have four tablespoonfuls of limewater added to it with good effect.—*Exchange.*

Duboisia as a Mydriatic.—The local effects of duboisia myoporoides, when applied to the eye, are similar to those of atropia; but they are more promptly produced, and disappear more rapidly. Its greater tendency of produce constitutional disturbance, however, should cause it to be carefully used. Nearly every patient, into whose eyes a four-grain solution had been dropped, complained of dizziness within a short time after its instillation, usually noted after rising from their chair. They do not, however, complain so much of dry throat as those treated by atropia. Where persistent use of atropia has failed to tear loose posterior synechiæ, but little effect has followed the employment of duboisia. On the other hand, it gave much satisfaction in two cases where atropia called forth marked conjunctivitis. One was a severe iritis, the other a case of cataract, where, owing to capsulitis following extraction, it was desirable to maintain dilatation of the pupil.—*Wm. F. Norris, M. D.: in American Journal of Medical Sciences.*

Wattle Bark; its Medicinal Uses.—An infusion of a drachm of the bark in two-thirds of a breakfast cupful of boiling water, infused one or two hours, given in doses of a teaspoonful every half-hour, is a valuable remedy in infantile diarrhœa, two or the three doses affording relief. In dysentery its value is not so marked. In "sore eyes," catarrhal ophthalmia it is a favorite and successful country remedy.

Two drachms of the tincture mixed with an ounce of glycerine is a useful application in discharge from the ears, for chapped lips, sore nipples, and slight fissures of various kinds. This forms a good substitute for glycerine and tannic acid. The bark yields a good gargle for relaxed throat.

Wattle bark is derived from acacia pycnantha Benth., nat. of Australia. The gum is used internally for piles, and in veterinary or farriers' practice for wounds and raw shoulders. [From a paper read by Dr. S. J. Margery before the Adelaide Philos. Soc.]—*Chem. and Druggist.*

A New Method of Administering Koosso.—Of all the remedies for tape-worm none is more certain and efficient than koosso, and many efforts have been made to bring it into such pharmaceutical shape that, while its properties as a tænicide remain unimpaired, it might be administered without repugnance. Dr. Corre, some years ago, proposed the following method, which has been successfully used in many cases: One half ounce of freshly powdered koosso is treated with one ounce of hot castor oil, and afterwards with two ounces of boiling water by displacement; express, and by means of the yolk of an egg

combine the two percolates into an emulsion, and add forty drops of sulphuric ether, flavoring with some aromatic oil. This is to be taken in one dose early in the morning, after a previous fast of about eighteen hours. The worm is usually expelled dead after six or eight hours.—*Medical Press and Circular.*

THERAPEUTIC ACTION OF ALKALIES IN GLYCOSURIA.—Dr. J. Cornillon writes, in *Le Progrès Mèdical,* that in thirty-two cases of diabetes mellitus treated by the waters of Vichy, twenty-eight were materially improved, two were entirely cured, and two were made worse. In the favorable cases improvement was noticed by the tenth day, in the less favorable ones, not before the thirtieth day. The urine becomes alkaline in a few days, and its color is darker; emaciation is arrested, the appetite improves, wounds heal more readily, ophthalmic derangements get better, the patient gains flesh, the quantity of sugar in the urine sinks to very low level. This alkaline treatment must be continued sometimes for a lifetime. Absolute cure is the exception. Nitrogenous diet also forms a part of the treatment, but this alone does not diminish the sugar in proportionate degree.

CITRATE OF CAFFEINE.—Dr. Leech lately read before the Manchester Medical Society a paper on the therapeutic uses of citrate of caffeine. His remarks were chiefly devoted to its diuretic action, and he showed, by tabulating the quantity of urine passed under the influence of different drugs, and apart form the influence of drugs, that caffeine has a powerful effect in increasing the action of the kidneys in some pathological conditions. He found it most useful in dropsy dependent on heart-disease, but in some obscure cases of ascites apparently due to peritoneal changes it had seemed to be of much service.

A THERAPEUTIC NOTE—TARTRATE OF MORPHIA.—The new preparation of neutral tartrate of morphia is a useful adjunct to our therapeutics (Med. Press and Circular.) Being very soluble it passes quickly out of the system, and gives less of the unpleasant after-effects than either the muriate or acetate. Its great solubility makes it particularly advantageous for subcutaneous injection. It gives little smarting or irritation when thus administered, and the solution never clogs the finest needles.—*Louisville Med. News.*

FLORES SILIGINIS.—Dr. R. Reicher has called attention to the febrifuge action of flores siliginis, the anthers of a species of wheat. In Hungary this remedy is used to procure abortion, and as a styptic in vaginal hemorrhage. It has an agreeable bitter taste, which develops after prolonged chewing. It has no striking effect on the sensorium and the organs of digestion and secretion. In slight cases of intermittent fever as much as will lie on point of a knife has been given with good results. In severer cases the dose should be repeated every two hours.—*Arch. d. Pharm.* from *Pest. Med.-Chir, Presse.*

GUARANA IN THE TREATMENT OF EPISTAXIS.—At the session of the Cincinnati Medical Society, February 17, 1880, Dr. John Davis spoke of plugging, the use of astringents, etc., in epistaxis, but dwelt chiefly on the beneficial effects of guarana, which he thought exerted an inhibitory influence on the cranial circulation. He had given the elixir of guarana for epistaxis, in half a tablespoonful doses every hour. In one hour after the remedy had been commenced the bleeding had grown much less, and in another hour it had ceased altogether.—*Phila. Med. and Surg. Reporter.*

PHOSPHATE OF BISMUTH.—Phosphate of bismuth is recommended by M. Tedenat, of France, as superior to subnitrate. It acts in smaller doses, being more soluble, and is applicable to the same conditions for which the subnitrate is employed. The dose is one to two grains for an adult.

Transactions of Societies.

Wayne County Medical Society.

STATED MEETING.

DETROIT, April 1st, 1880.

Dr. Clarke read a paper on "Rhamnus Purshiana." (Dr. Clarke's paper appeared in the July number of the GAZETTE.)

Dr. Leonard's experience with cascara sagrada corresponds with the results given in the paper. He prefers small doses—a quarter of a teaspoonfull—for the first few days, and then increases or decreases the quantity as found necessary to produce the desired results.

Dr. Lyster has used cascara quite often during the last six months—often in combination with muriatic acid—and has been well pleased with the results.

Dr. Kaiser has used cascara extensively, and in combination with strychnia with excellent results.

Dr. Bissell ordered cascara in one case which had caused considerable trouble but observed no espccially beneficial results.

Dr. Brodie.—The results of the use of cascara sagrada have been somewhat variable in my practice; at times I was much pleased with the drug and again was disgusted. After a time I discovered that this variability was due to the fact that my prescriptions were filled at different drug stores. On tasting a mixture one day which I had ordered, I was struck with a peculiarity in its taste. I inquired of the druggist who had put it up, and was assured by him that he had dispensed the genuine article prepared by Messrs. —— of ——. He admitted that he habitually used that preparation because he obtained it at a very much reduced price. Until the newer remedies have become incorporated in the pharmacopœia, this element of uncertainty will exist, and much misconception regarding the merits of the remedies will consequently occur in the minds of every fair minded physician. The only safegurd against this species of imposition, for such it really is, is for the prescriber to specify the name of such manufacturing pharmacist as he has the most satisfactory reasons for believing is both competent and honest. It is, it is true, a reflection on pharmacists for the physician to discriminate in this manner, but the dishonesty or incompetency

(call by which name you choose) makes a virtue of necessity. Cascara sagrada is now a standard remedy of fixed properties, and when the preparation of it, which is dispensed, is inactive, the fault, it is to be feared, usually lies in the dishonesty of the manufacturer. There are wheels within wheels in this business of pharmacy, and it is barely possible that new remedies are sometimes sophisticated with a sinister purpose.

Dr. Richards has failed to witness the benefits from cascara which have been reported by others. It has often been used in combination with other drugs of recognized value, such as strychniæ, belladonna, rhubarb, podophyllin, etc., to which some of the benefits might be ascribed.

G. R. RICHARDS, M. D., Secretary pro tem.

STATED MEETING.

DETROIT, May 6th, 1880.

Dr. Leonard presented a tumor of the fibroid variety removed in consultation with Dr. Rouse, from a lady aged about 45 years. The tumor was kidney-shaped, well filled the pelvic cavity, and was attached to the cervix uteri. Menstruation ceased three years ago, but during this time there was considerable hæmorrhage, supposed to be due to the climacteric period. This flow ceased with the removal of the tumor.

Dr. Book reported a case of abortion at about two months of gestation said to have been caused by a dose of Humphrey's Specific, No. XXVIII.

Dr. Smith has been using dry chloride of lime as a local application for diphtheria with favorable results. It is applied by means of a swab.

G. R. RICHARDS, M. D., Secretary, pro tem.

STATED MEETING.

DETROIT, June 10th, 1880.

Dr. Richards, for Dr. Sue, of Fenton, read a report of a case of suppression of urine, of which the following is an abstract:

Miss A., a teacher, æt. 30 years, was prostrated from over work. There was much pain in the lumbar region extending into both groins, with pulse 90, temperature 100° F., and no urine voided since previous day. With catheter ℥ viij of normal colored acid urine free of albumen, and specific gravity 1018 was removed. It was not examined by microscope. There was headache, irritable stomach, and constipated bowels. Hyd. chlor. mite, followed by saline cathartic was ordered. Potas. bromide was directed at night if the patient was restless. The next day the bowels had acted, but there had been very little sleep. No urine voided, or removable by means of catheter. Symptoms about the same. Jaborandi, hip bath, hot fomentations to the back, and milk diet ordered. The next day but little change. The stomach more irritable, pulse 100, temperature 100° and skin dry. From March 25th to April 3d, no urine was passed, the temperature rangde from 100° to 101°, and the pulse 90 to 100, small and feeble. The nervous symptoms were insomnia, restlessness and very slight twitching. The throat was sore, the stomach irritable, and the bowels normal. March 4th, four ounces of normal urine was drawn, but no more could be obtained until March 6th, when the temperature was 112°, the pulse 160, very feeble and irregular, and the mind clear. An alcohol bath was given and the patient placed in bed surrounded with bottles of hot water. The skin became moist, and within an hour profuse perspiration occurred. In two hours the temperature was 100° and the pulse 80 per minute. In one hour more eight ounces of urine were withdrawn. The patient gradually improved from this time.

Dr. Lyster reported a case of ascites in which the urine was very scant. The patient has been tapped four times, and considerable albuminous fluid removed. No disease of the liver can be detected, yet a nodulous condition in the vicinity of the spleen indicates that there may be cancerous development possibly of the omentum.

Dr. Mulheron.—Dr. Sue's case is remarkable on account of the slight nervous disturbance with the high temperature, as well as on account of the recovery. Has never seen a case of total suppression of urine resulting in recovery.

Dr. Klein.—Saw with Dr. I. S. Smith, a man, aged about 70 years, who had during ten years been troubled with urgent desire to urinate very often. During the last ten days of his life the water was drawn in quantities ranging from half to one ounce at a time. A decided urinous odor emanated from all parts of his body.

Dr. Gustin has a case in which only about four ounces of urine is voided daily, though the patient drinks enough for three to four times that much. For two or three days every one to two months the patient is hysterical, and voids about a pint daily. The bowels are normal.

Dr. Richards.—A woman, æt. 45 years, a good liver, weighing 200 pounds, excreted not more than an ounce of urine daily for about two weeks. She recovered, but in about three weeks the trouble returned and continued about two weeks as before. The urine which was drawn by catheter was normal except in quantity. The bowels slightly constipated, the temperature, pulse, tongue and menses normal. The patient was somewhat hysterical during the second attack. She is now pregnant and passes much water.

Other members reported cases but most cases of suppression of urine had proved fatal.

Dr. Eaton presented a case with a small tumor in the vicinity of the elbow. There is no history of injury and it causes little trouble except in certain positions of the arm, when it becomes intensely painful. Similar swellings have appeared in the vicinity of other joints, and usually continue from two to three weeks. Many remedies have been used, but salicylic acid and bicarbonate of soda have been most serviceable.

The trouble was regarded of rheumatic origin.

Dr. Brodie.—A young man of temperate habits, having suffered from headache for a short time, was suddenly paralyzed in one arm and leg. Believing the trouble to be due to congestion at the nerve centres, he gave free doses of calomel and tartar emetic. Free emesis and catharsis resulted, and marked improvement in the symptoms followed.

Dr. Lyster reported several fatal cases of diphtheria occurring in the eastern part of the city.

W. H. ROUSE, M. D., Secretary.